AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

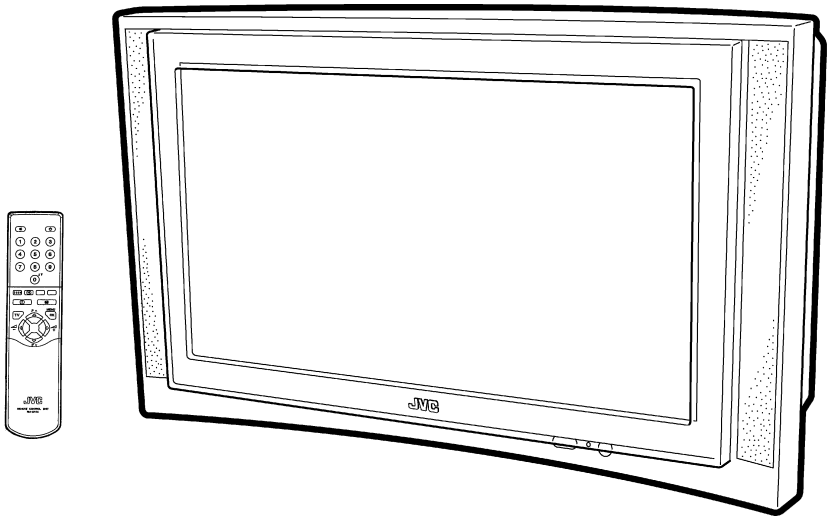
JVC

SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS
MD

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK



CONTENTS

■ SPECIFICATIONS ····· 2
■ SAFETY PRECAUTIONS ····· 4
■ FEATURES / FUNCTIONS ····· 6
■ MAIN DIFFERENCE PARTS LIST ····· 8
■ SPECIFIC SERVICE INSTRUCTIONS ····· 10
■ SERVICE ADJUSTMENTS ····· 16
★ STANDARD CIRCUIT DIAGRAM (APPENDIX) ····· 2-1
■ PARTS LIST ····· 35

COPYRIGHT © 2000 VICTOR COMPANY OF JAPAN, LTD.

No.51733
Jun. 2000

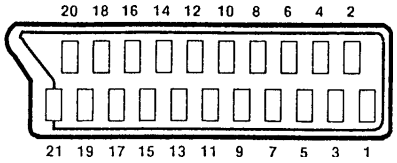
SPECIFICATIONS

Item		Content	
		AV-32WL1EU AV-32WL1EI	AV-32WL1EK
Dimensions (W × H × D)		901mm × 556mm × 557mm	901mm × 556mm × 557mm
Mass		54.7kg	54.7kg
TV RF System		CCIR B/G, I, D/K, L	CCIR I
Colour System		PAL / SECAM NTSC 3.58 / 4.43(Play back only)	PAL NTSC3.58 / 4.43(Play back only)
Stereo System		A2 / (B/G, D/K) , NICAM (B/G, I, D/K, L)	NICAM(I)
Teletext System		Fastext(United Kingdom system) TOP(German system) WST(Standard system)	Fastext(United Kingdom system) WST(Standard system)
Receiving Frequency	**VHF**	47MHz～ 470MHz	————
	UHF	470MHz～862MHz	470MHz～862MHz
	French CATV	116MHz～172MHz / 220MHz～469MHz	————
Intermediate Frequency			
	VIF Carrier	38.9MHz(B/G, D/K, I, L) / 34.10MHz(L')	39.5MHz(I)
	SIF Carrier	33.4MHz(5.5MHz : B/G) / 32.9MHz(6.0MHz : I) / 32.4MHz(6.5MHz : L, D/K) / 40.6MHz(6.5MHz : L')	33.5MHZ(6.0MHz : I)
Colour Sub Carrier	**PAL**	4.43MHz	4.43MHz
	SECAM	4.40625MHz / 4.25MHz	————
	NTSC	3.58MHz / 4.43MHz	3.58MHz / 4.43<Hz
Power Input		AC 220V～240V , 50Hz	←
Power Consumption		195W(Max), 145W(Avg)	←
Picture Tube		Visible size : 76cm, Measured diagonally	←
High Voltage		31.5kV $^{+1kV}_{-1.5kV}$ (at zero beam current)	←
Speaker		16cm × 4cm oval × 2	←
Audio Output		7.5W+7.5W	←
EXT-1/EXT-2/EXT-3 (Input / Output)		21-pin Euro connector (SCART socket)	←
EXT4 (Input)	**Video**	1Vp-p 75Ω(RCA pin jack)	
	Audio(L/R)	500mVrms(-4dBs), High Impedance(RCA pin jack)	
	S-VIDEO	Y : 1Vp-p Positive (negative sync provided, when terminated with 75Ω) C : 0.286Vp-p (burst signal, when terminated with 75Ω)	←
AUDIO OUT	**Variable**	0-1 Vrms, low impedance	
Aerial Input		75Ω unbalanced, Coaxial	←
Headphone jack		Stereo mini jack (φ3.5mm)	←
Remote Control Unit		RM-C54 (AAA/R03 dry battery × 2 : AV-32WL1EU) RM-C55 (AAA/R03 dry battery × 2 : AV-32WL1EI)	RM-C55 (AAA/R03 dry battery × 2)

Design & specifications are subject to change without notice.

■21-pin Euro connector (SCART socket) : EXT-1 / EXT-2 / EXT-3

[PIN ASSINGMENT]



(P-P= Peak to Peak, S-W= Sync tip to white peak, B-W= Blanking to white peak)

No.	Signal Designation	Matching Value	EXT-1	EXT-2	EXT-3
1	AUDIO R output	500mVrms(Nominal), Low impedance	O (TV OUT)	O (LINE OUT)	NC
2	AUDIO R input	500mVrms(Nominal), High impedance	O	O	O
3	AUDIO L output	500mVrms(Nominal), Low impedance	O (TV OUT)	O (LINE OUT)	NC
4	AUDIO GND		O	O	O
5	GND (B)		O	O	O
6	AUDIO L input	500mVrms(Nominal), High impedance	O	O	O
7	B input	700mV$_{B-W}$, 75Ω	O	NC	NC
8	FUNCTON SW (SLOW SW)	Low : 0-3V, High : 8-12V, High impedance	O	O	O
9	GND (G)		O	O	O
10	SCL3		NC	O (T-V LINK)	NC
11	G input	700mV$_{B-W}$, 75Ω	O	NC	NC
12	SDA3		NC	O	NC
13	GND (R)		O	O	O
14	GND (Y$_S$)		O	NC	NC
15	R / C input	R : 700mV$_{B-W}$, 75Ω C : 300mV$_{P-P}$, 75Ω	O (only R)	O (only C)	O (only C)
16	Ys input	Low : 0 - 0.4, High : 1 - 3V, 75Ω	O	NC	NC
17	GND(VIDEO output)		O	O	O
18	GND(VIDEO input)		O	O	O
19	VIDEO output	1V$_{P-P}$(Negative going sync), 75Ω	O (TV)	O (LINE OUT)	NC
20	VIDEO / Y input	1V$_{P-P}$(Negative going sync), 75Ω	O	O	O
21	COMMON GND		O	O	O

SAFETY PRECAUTIONS AV-32WL1EI / AV-32WL1EK

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessary be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may cause shock, fire, or other hazards.

4. The leads in the products are routed and dressed with ties, clamps, tubing's, barriers and the like to be separated from live parts, high temperature parts, moving parts and / or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

WARNING

1. The equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

SAFETY PRECAUTIONS AV-32WL1EU

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.

5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).

6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

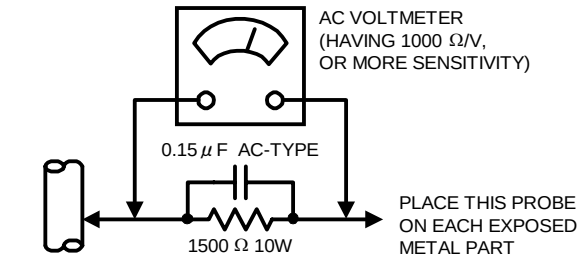
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. **Isolation Check**
   (Safety for Electrical Shock Hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

(2) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

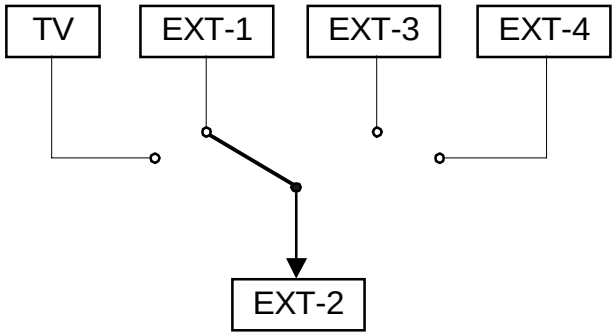
● **Alternate Check Method**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



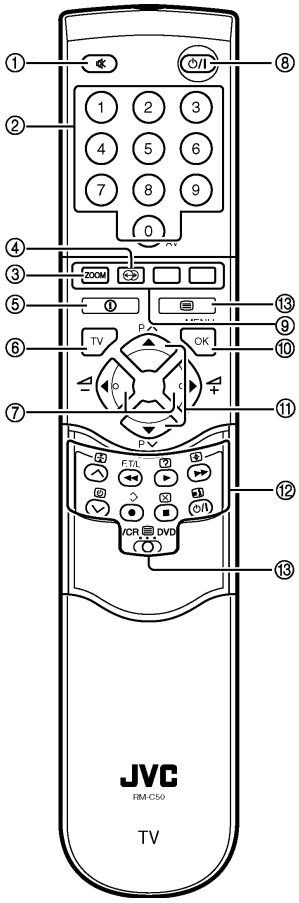
FEATURES

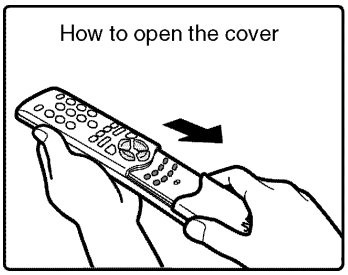
- By preference, users can select the picture size from REGULAR, PANORAMIC, 14:9 ZOOM, 16:9 ZOOM, 16:9 ZOOM SUBTITLE, FULL modes. When the TV unit received WSS picture signal, the picture can be changed to 16:9 mode automatically.
- The TELETEXT SYSTEM has a built-in Fastext, TOP and WST system (TOP systems are except for AV-32WL1EK).
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism. In addition, BILINGUAL programs can be heard in their original language.
- In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Users can make VCR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output shown in figure.
- Built-in T-V LINK.

EXT TERMINAL SWITCHING SYSTEM



FUNCTIONS- I

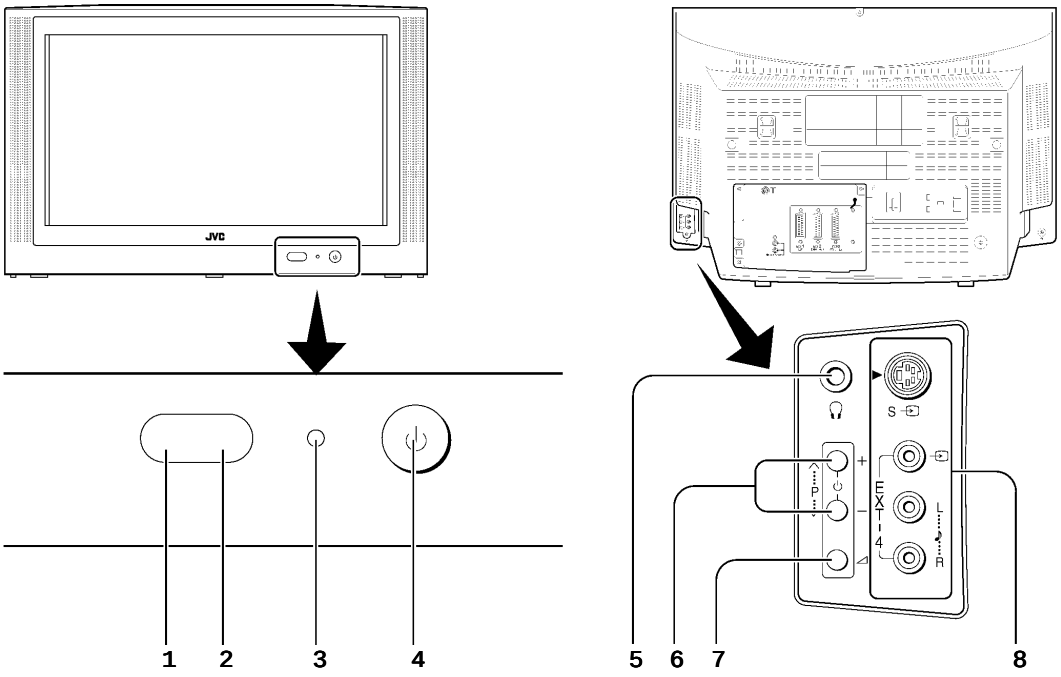




①MUTING key
②NUMBER key
③ZOOM key
④HYPER SOUND key
⑤INFORMATION key
⑥TV key
⑦VOLUME -/+ key (FUNCTION LEFT/RIGHT key)
⑧STANDBY key
⑨COLOUR buttons key
⑩OK / MENU key
⑪PR∧/∨key (FUNCTION UP/DOWN key)
⑫VCR/TELETEXT/DVD control key
⑬VCR/TELETEXT/DVD key

FUNCTIONS-Ⅱ

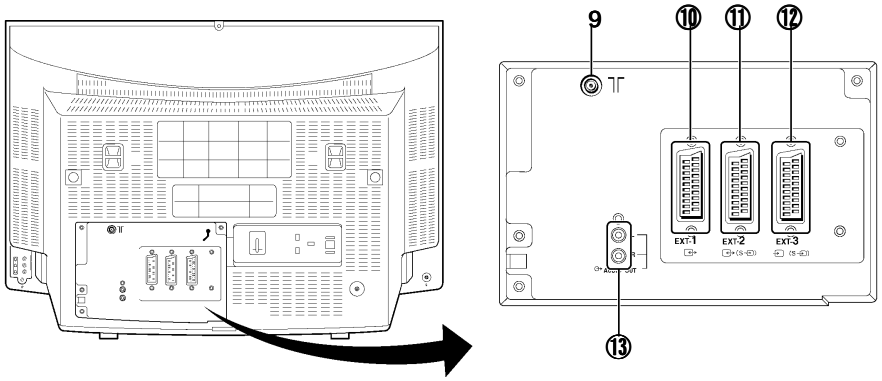
■FRONT PANEL & SIDE CONTROL JACK



1 Remote control sensor
2 ECO sensor
3 Power lamp
4 Main power button

5 Head phone jack
6 P △/▽ button (-/+ buttons)
7 Volume button
8 EXT-4 terminal (S, V, L, R)

■REAR PANEL



9 Aerial socket
⑩ EXT-1 terminal
⑪ EXT-2 terminal

⑫ EXT-3 terminal
⑬ AUDIO OUT terminal

MAIN DIFFERENCE PARTS LIST

⚠	Model Name / Part Name	AV-32WL1EU	AV-32WL1EI	AV-32WL1EK
	MAIN PWB	SMD-1006A-U2	←	SMD-1903A-U2
	IF PWB	SMD0F003A-U2	←	SMD0F903A-U2
⚠	POWER CORD	QMPK160-185-JC	QMPN130-185-JC	←
⚠	RATING LABEL	LC20379-006A-U LC20380-006A-U	LC20080-009A-U	LC20075-030A-U
	REMOCON UNIT	RM-C54-1C	RM-C55-1C	←
	EURO LABEL	AEM1039-093-E	AEM1052-002-E	AEM1052-001-E
	WARNING LABEL	LC30789-002A-U	————	————
⚠	INST BOOK	LCT0803-001A-U LCT0804-001A-U LCT0805-001A-U	LCT0807-001A-U	LCT0806-001A-U
	X-RAY CARD	AEM1054-001-E	————	————
	S. DIAGRAM	32WL1EU-HSAE	————	————

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

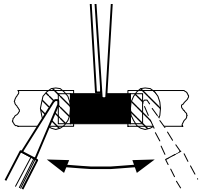
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

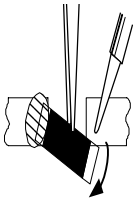
1. How to remove Chip parts

◆ **Resistors, capacitors, etc**

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

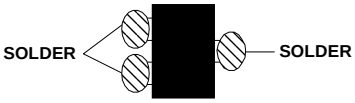


(2) Shift with tweezers and remove the chip part.

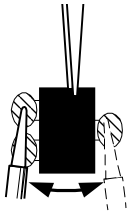


◆ **Transistors, diodes, variable resistors, etc**

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

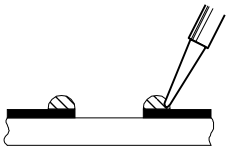


Note : After removing the part, remove remaining solder from the pattern.

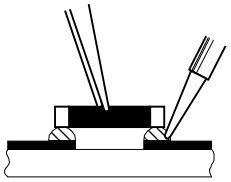
2. How to install Chip parts

◆ **Resistors, capacitors, etc**

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

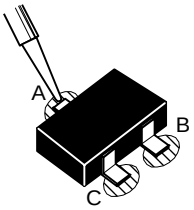


◆ **Transistors, diodes, variable resistors, etc**

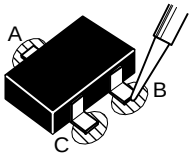
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power cord plug from wall outlet.
2. As shown in Fig.4, remove the **11** screws marked **A** .
3. Withdraw the REAR COVER toward you.

REMOVING THE CHASSIS BASE

- After removing the REAR COVER.

1. Slightly raise the both sides of the chassis base by hand and remove the 2 claws under the both sides of the chassis base from the FRONT CABINET.
2. Withdraw the chassis base backward.
   (If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV BOARD

- After removing the REAR COVER.

1. As shown in Fig.4, remove the **4** screws marked **B** .
2. As shown in Fig.1, remove the claws marked **C** under the chassis.
3. As shown in Fig.1, while raising the claw marked **D** , remove the top of the AV BOARD slightly in the direction of arrow **E** .

REMOVING THE SPEAKER BOX

- After removing the REAR COVER.

1. As shown in Fig.4, remove the **2** screws marked **F** , then remove the SPEAKER BOX from FRONT CABINET.
2. Follow the same steps when removing the other hand SPEAKER BOX.

REMOVING THE CONTROL BASE

- After removing the CHASSIS.

1. As shown in Fig.2, while pushing down the claws marked **G** , remove the CONTROL BASE in the arrow direction **H** .

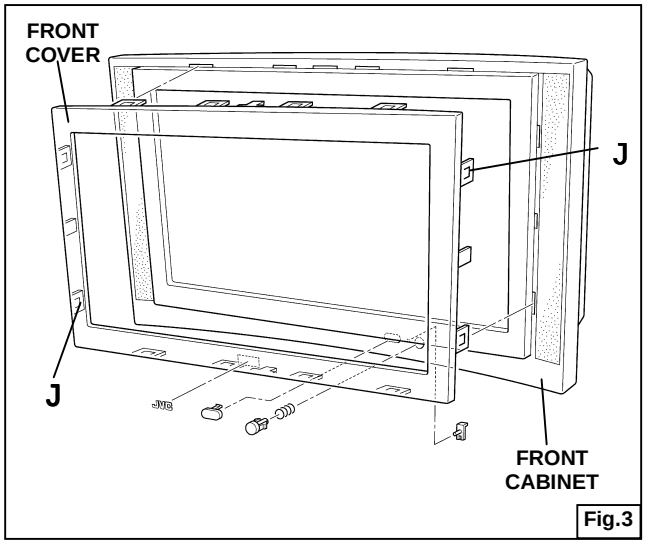


Fig.3

REMOVING THE FRONT COVER

- After removing the REAR COVER.

1. As shown in Fig.3, remove the 12 claws, marked **J** .
2. Withdraw the FRONT COVER forward front.

CHECKING THE PW BOARD

To check the back side of the PW Board.

1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire. Never remove the cable tie used for tying the wires together.
   Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

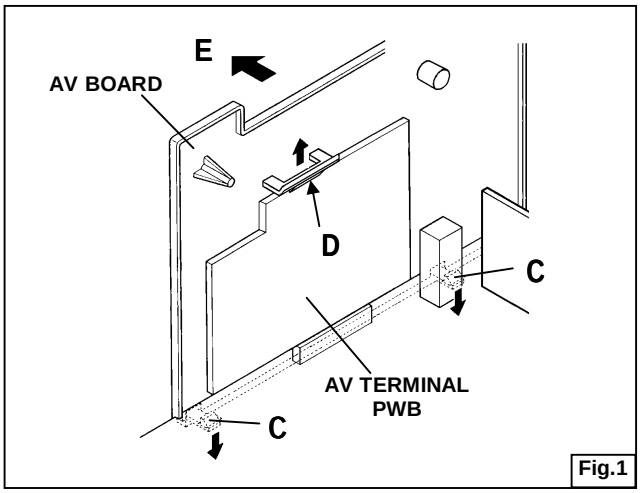


Fig.1

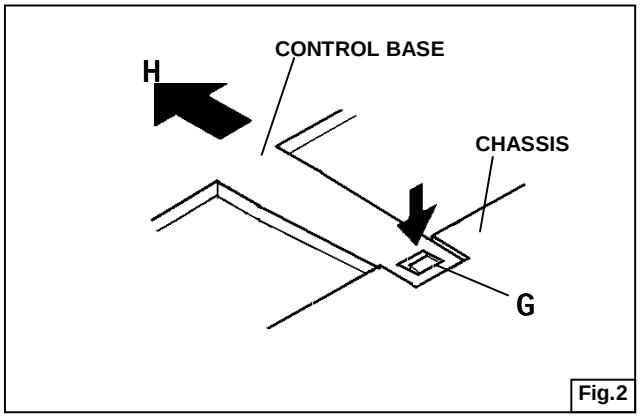
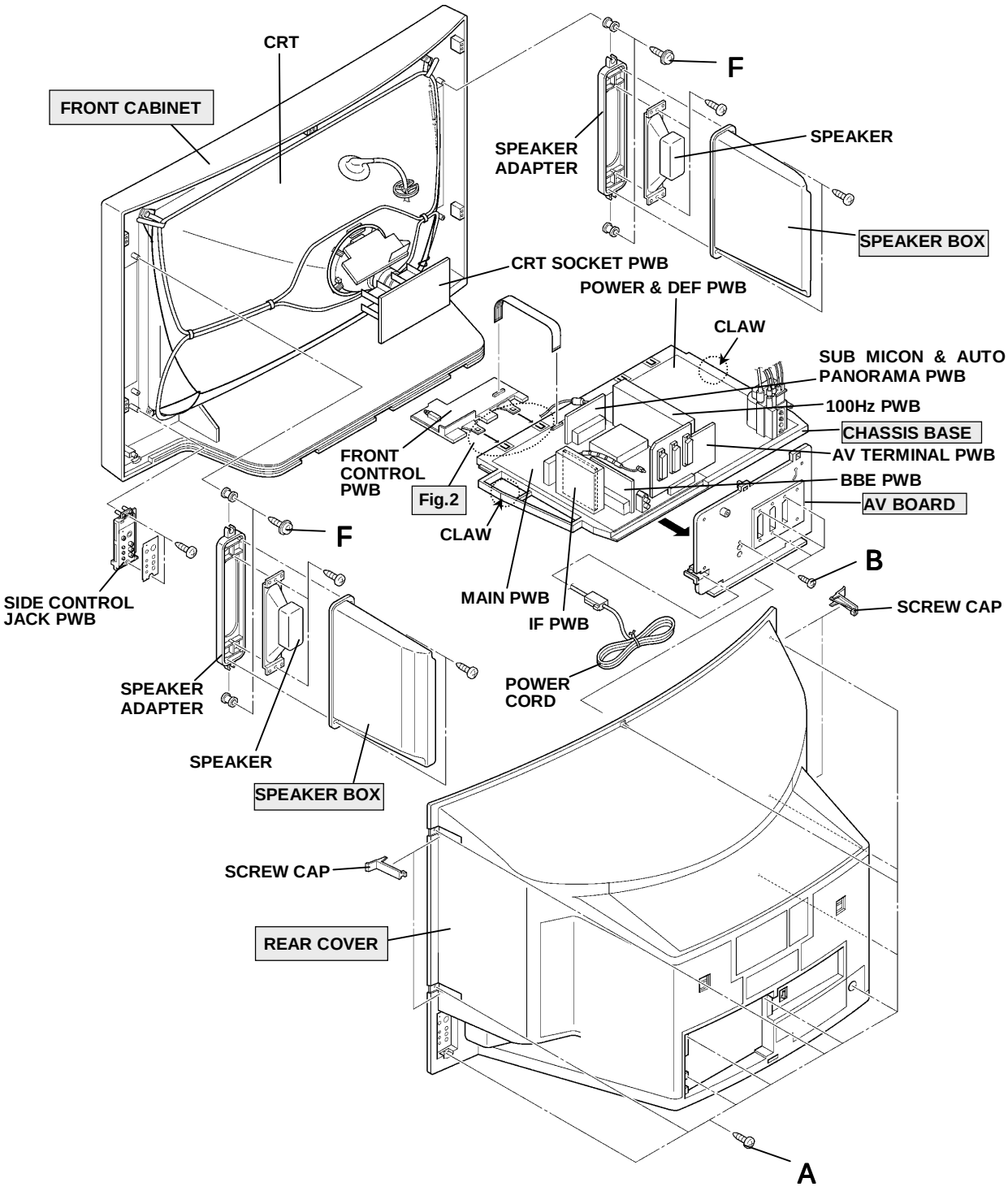


Fig.2



This exploded view describes about AV-32WL1EU. Although AV-32WL1EI/EK has some different from this figure, you can use the exploded view for disassembling the AV-32WL1EU in the same steps.

Fig.4

REMOVING THE CRT

Replacement of the CRT should be performed by 2 or more persons.
After removing the cover, chassis etc..

1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.5).
2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.5.
3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.6.
   Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.7.

The CRT should be assembled according to the opposite sequence of its dismounting steps.
The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

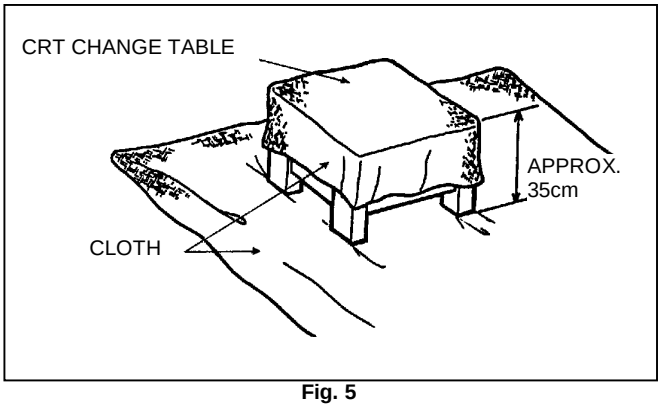


Fig. 5

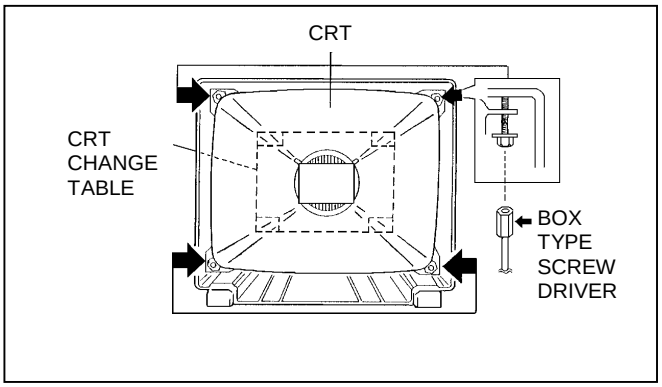


Fig. 6

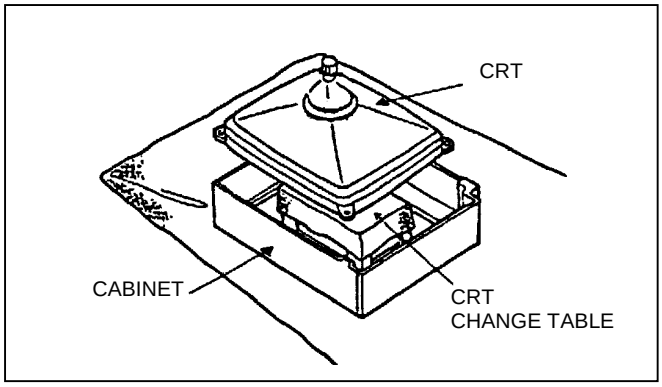


Fig. 7

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig.8.
Wipe around the anode button with clean and dry cloth. (Fig.8)
Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.9)

★ **Silicon grease product No. KS - 650N**

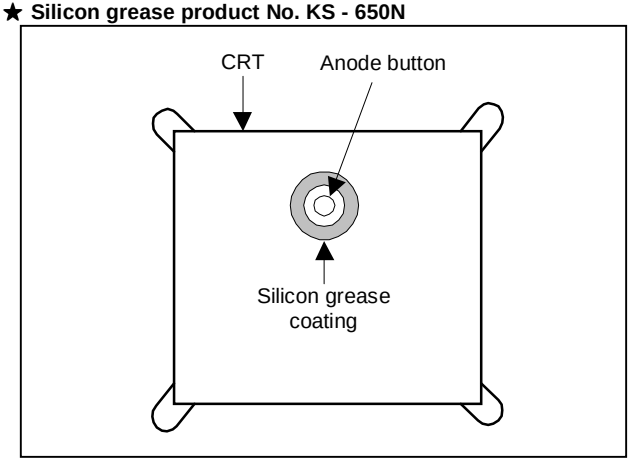


Fig. 8

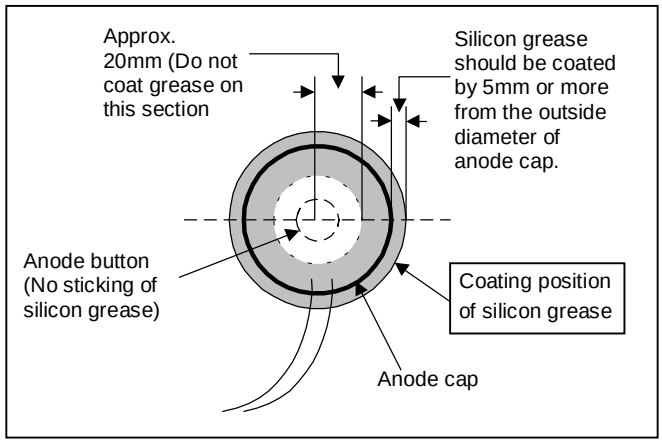


Fig. 9

REPLACEMENT OF MEMORY ICs

1. Memory ICs

This model uses memory ICs. This memory IC data are for proper operation of the video and deflection circuits. When replacing, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

PROCEDURE
(1) **Power off** Switch off the power and disconnect the power plug from the wall outlet.
(2) **Replace the memory IC** Be sure to use memory ICs written with the initial data values.
(3) **Power on** Connect the power plug into the wall outlet and switch the power on.
(4) **Check and set SYSTEM CONSTANT SET** ● **It must not adjust without adjustment signals.** 1) Press the **INFORMATION** key and the **MUTING** key of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen of Fig. 1 will be displayed. 3) While the SERVICE MENU is displayed, again press the **INFORMATION** key and **MUTING** key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed. 4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the **FUNCTION UP/DOWN** key, and set the correct value with the **FUNCTION LEFT/RIGHT** key. 5) Press the **OK** key to memorize the setting value. 6) Press the **INFORMATION** key twice, and return to the normal screen.
(5) **Receive channel setting** Refer to the OPERATING INSTRUCTIONS, and set the receive channels as described.
(6) **User settings** Check the user setting items according to Table 2. Where these do not agree, refer to the OPERATING INSTRUCTIONS.
(7) **SERVICE MENU setting** Verify what to set in the **SERVICE MENU,** and set whatever is necessary. For setting, refer to the SERVICE ADJUSTMENTS.

SERVICE MENU

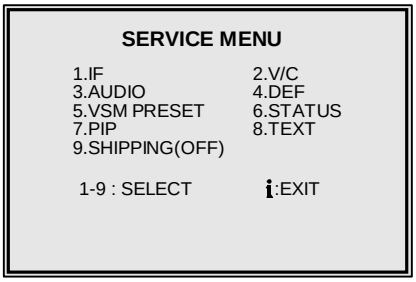


Fig.1

SYSTEM CONSTANT SET

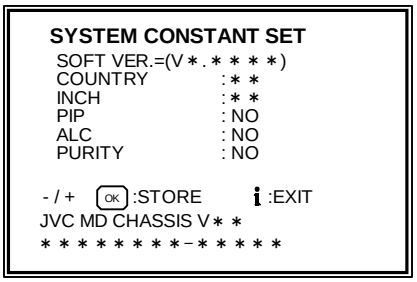
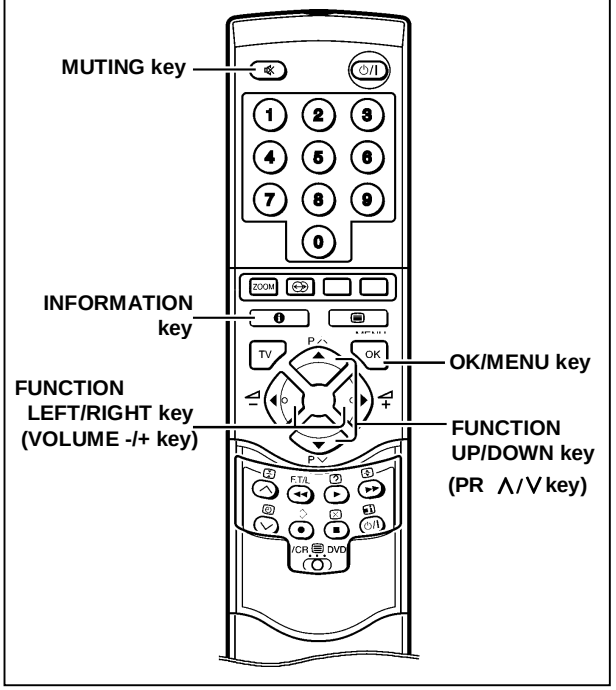


Fig.2

KEY ASSIGNMENT OF REMOTE CONTROL UNIT



SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)

Setting item	Setting content	Setting value	
		AV-32WL1EU AV-32WL1EI	AV-32WL1EK
COUNTRY	→ EK → EN → EP → ER → EU/EI →	EU / EI	EK
INCH	→ 28 → 32 → 29 →	32	←
PIP	→ YES → NO →	NO	←
ALC	→ YES → NO →	NO	←
PURITY	→ YES → NO →	NO	←

USER SETTING VALUES (TABLE 2)

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	VOLUME	Appropriate sound volume
CHANNEL	1 POSITION	DISPLAY	CHANNEL NUMBER DISPLAY
CHANNEL PRESET	See OPERATING INSTRUCTUONS.	ZOOM	REGULAR
PICTURE SETTING		EXT SETTING	
TINT CONTRAST BRIGHT SHARP COLOUR HUE	COOL All CENTER	DUBBING	EXT1→EXT2
ECO MODE	OFF		
PICTURE FEATURES		FEATURES	
DIGITAL VNR DigiPure COLOUR SYSTEM 4:3 AUTO ASPECT PICTURE TILT	AUTO AUTO TV : According to preset CH EXT : AUTO PANORAMIC CENTER	SLEEP TIMER BLUE BACK CHILD LOCK DECORDER(EXT-2)	OFF ON ID : No.0000 ALL CH OFF OFF
SOUND SETTING		INSTALL	
STEREO / Ⅰ・Ⅱ BASS TREBLE BALANCE BBE HYPER SOUND SPEAKER	(STEREO SOUND) CENTER ON OFF ON	LANGUAGE AUTO PROGRAM EDIT / MANUAL	ENGLISH
		INDEX	————
		DEMO	————

SERVICE MENU SETTING ITEMS (TABLE 3)

Setting item	Setting value	Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT 3. LV LEVEL	5. VSM PRESET (COOL NORMAL WARM)	1. BRIGHT 2. CONT 3. COLOUR 4. SHARP 5. HUE 6. WDR R 7. WDR G 8. WDR B 9. BASS 10. TREBLE
2. V / C	1. RGB BLK 2. WDR R 3. WDR G 4. WDR B 5. CUT R 6. CUT G 7. CUT B 8. BRIGHT 9. CONT. 10. COLOUR 11. HUE 12. CONT LIMIT	6. STATUS ***(Do not adjust)***	VPS PDC 8/30/L AUTO SUB SUB VER MTEXT
3. AUDIO ***(Do not adjust)***	1. CONC LIMIT 2. A2 ID THR	7. PIP ***(Do not adjust)***	This model doesn't have PIP function. It is no requirement for adjustment.
4. DEF.	1. V-SHIFT 2. V-SIZE 3. H-CENT 4. H-SIZE 5. EW-PIN 6. TRAPEZ 7. COR-UP 8. COR-LO 9. ANGLE 10. BOW 11. V-S.CR 12. V-LIN	8. TEXT	1. TEXT MONO H
		9. SHIPPING ***(Do not adjust)***	OFF ↕ ON

SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. **There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
2. **The adjustment with the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to its optimum condition may differ from the initial setting values.**
3. Make sure that connection is correctly made to AC power source.
4. Turn on the power of the set and equipment before use, and start the adjustment procedures after waiting at least 30 minuets.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. **Never touch any adjustment parts, which are not specified in the list for this adjustment variable resistors, transforms, condensers, etc.**
7. Preparation for adjustment (presetting):
   Unless otherwise specified in the adjustment instructions, preset the following functions with the REMOTE CONTROL UNIT:

User mode setting condition

PICTURE SETTING TINT	COOL
CONTRAST	CENTER
BRIGHT	CENTER
SHARP	CENTER
COLOUR	CENTER
HUE	CENTER
DIGITAL VNR	OFF
DIGI PURE	AUTO
4:3 ASPECT	PANORAMIC
PICTURE TILT	CENTER
BBE	OFF
HYPER SOUND	OFF
SPEAKER	ON
ZOOM	FULL
SLEEP TIMER	OFF
BLUE BACK	OFF
ECO MODE	OFF

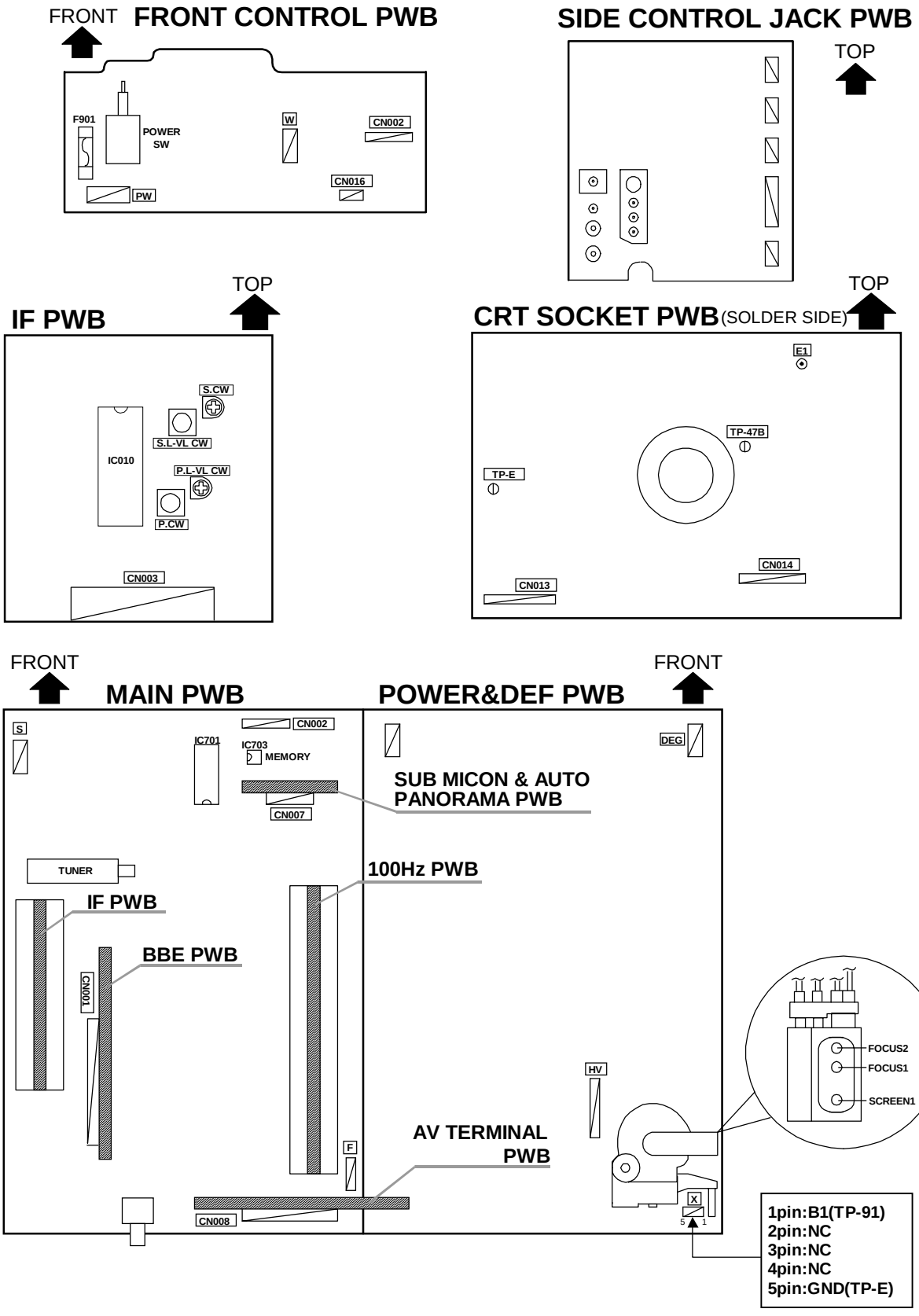
MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

- CHECK ITEMS BEFORE ADJUSTMENT
- FOCUS ADJUSTMENT
- IF CIRCUIT ADJUSTMENT
- VSM PRESETTING
- VIDEO / CHROMA CIRCUIT ADJUSTMENT
- DEFLECTION CIRCUIT ADJUSTMENT
- TEXT CIRCUIT ADJUSTMENT
- AUDIO CIRCUIT ADJUSTMENT **(Do not adjust)**

ADJUSTMENT LOCATIONS



BASIC OPERATION OF SERVICE MENU

1. The adjustment using SERVICE MENU

The following adjustment items use the SERVICE MENU in the series of the adjustment. The adjustments are made on the basis of the initial setting values. The adjustment values which adjust the screen to the optimum condition can be different from the initial setting values. With the SERVICE NEMU, various settings can be made, and they are broadly classified in the following items of settings.

IF ····· Adjustment of the IF circuits.
V/C ····· Adjustment of the VIDEO/CHROMA circuit.
AUDIO ····· Adjustment of the sound circuit **[Do not adjust]**.
DEF ····· Adjustment of the DEFLECTION circuit for each aspect mode given below.
FULL (100/120Hz) 16:9 ZOOM SUBTITLE (100/120Hz)
PANORAMIC (100/120Hz)
VSM PRESET ····· Adjustment of the initial setting values of VSM condition as COOL, NORMAL and WARM.
(VSM : Video Status Memory)
STATUS ····· Shows the monitor of the VPS **[Do not adjust]**.
(VPS : Video Program System)
PIP ····· Adjustment of the PIP circuit. But this model does not build in PIP system, because **do not adjust**.
TEXT ····· Adjustment of the TEXT mode.
SHIPPING ····· Setting the user setting values to initial condition **[Do not adjust]**.

2. Key operation of the SERVICE MENU

[Enter to SERVICE MENU]

Press the **INFORMATION** key and the **MUTING** key of the REMOTE CONTROL UNIT simultaneously. Then enter the SERVICE MENU mode as shown in Fig.1.

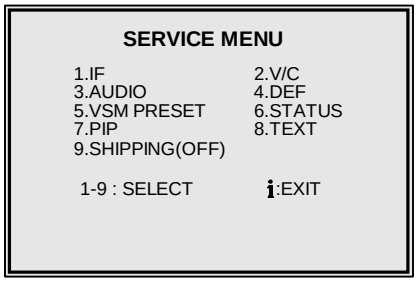
[Exit from SERVICE MENU]

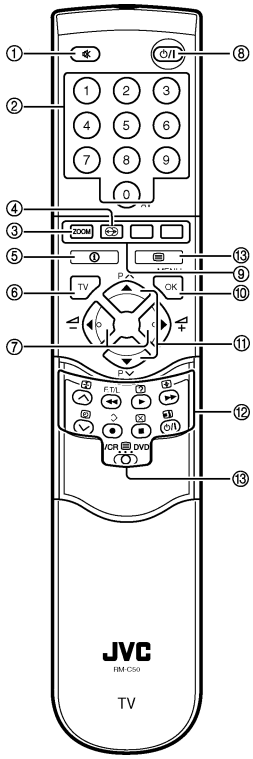
When complete the adjustment work, press the **INFORMATION** key to return to the SERVICE MENU.
And then press the **INFORMATION** key again, return to the normal screen.

[Select from main menu]

In main SERVICE MENU, press the number (1～9) key of the remote control unit, to select any of the adjustment items.
The colours which selected item characters are changed.

SERVICE MENU





①MUTING key
②NUMBER key
③ZOOM key
④HYPER SOUND key
⑤INFORMATION key
⑥TV key
⑦VOLUME -/+ key (FUNCTION LEFT/RIGHT key)
⑧STANDBY key
⑨COLOUR buttons key
⑩OK / MENU key
⑪PR∧/∨key (FUNCTION UP/DOWN key)
⑫VCR/TELETEXT/DVD control key
⑬VCR/TELETEXT/DVD key

[Method of setting]

1. IF

[1. VCO]

①1 Key ····· Select **1.IF**.

②1 Key ····· Select **1.VCO**

③The VCO (CW) screen will be displayed a allow mark when the AFC voltage is at a certain level.

④INFORMATION Key ····· As you press this twice, you will return to the **SERVICE MENU**.

[2. DELAY POINT]

①1 Key ····· Select **1.IF**.

②2 Key ····· Select **2.DELAY POINT**.

③FUNCTION LEFT/RIGHT ····· Set (adjust) the setting values of the setting items.

④OK Key ····· Memorize the set value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)

⑤INFORMATION Key ····· When this is pressed twice, you will return to the SERVICE MENU.

[3. LV LEVEL]

①1 Key ····· Select **1.IF**.

②3 Key ····· Select **3.LV LEVEL**.

③FUNCTION LEFT/RIGHT Key ····· Set (adjust) the setting values of the setting items.

④OK Key ····· Memorize the set value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)

⑤INFORMATION Key ····· When this is pressed twice, you will return to the SERVICE MENU.

2.V/C, 4.DEF, 5.VSM PRESET and **8.TEXT**

①2, 4, 5, 8 Key ····· Select one from **2. V/C, 4. DEF, 5. VSM PRESET** and **8.TEXT**.

②FUNCTION UP/DOUN Key ····· Select setting items.

③FUNCTION LEFT/RIGHT ····· Set (adjust) the setting values of the setting items.
(When 1.RGB BLK of 2.V/C is selected, press the FUNCTION-/+ key, and the whole will change to a black picture. Press the FUNCTION-/+ or 2 key, and the screen will return to the original screen.)

④OK Key ····· Memorize the setting value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key - if you do, the values will not be stored in memory.)

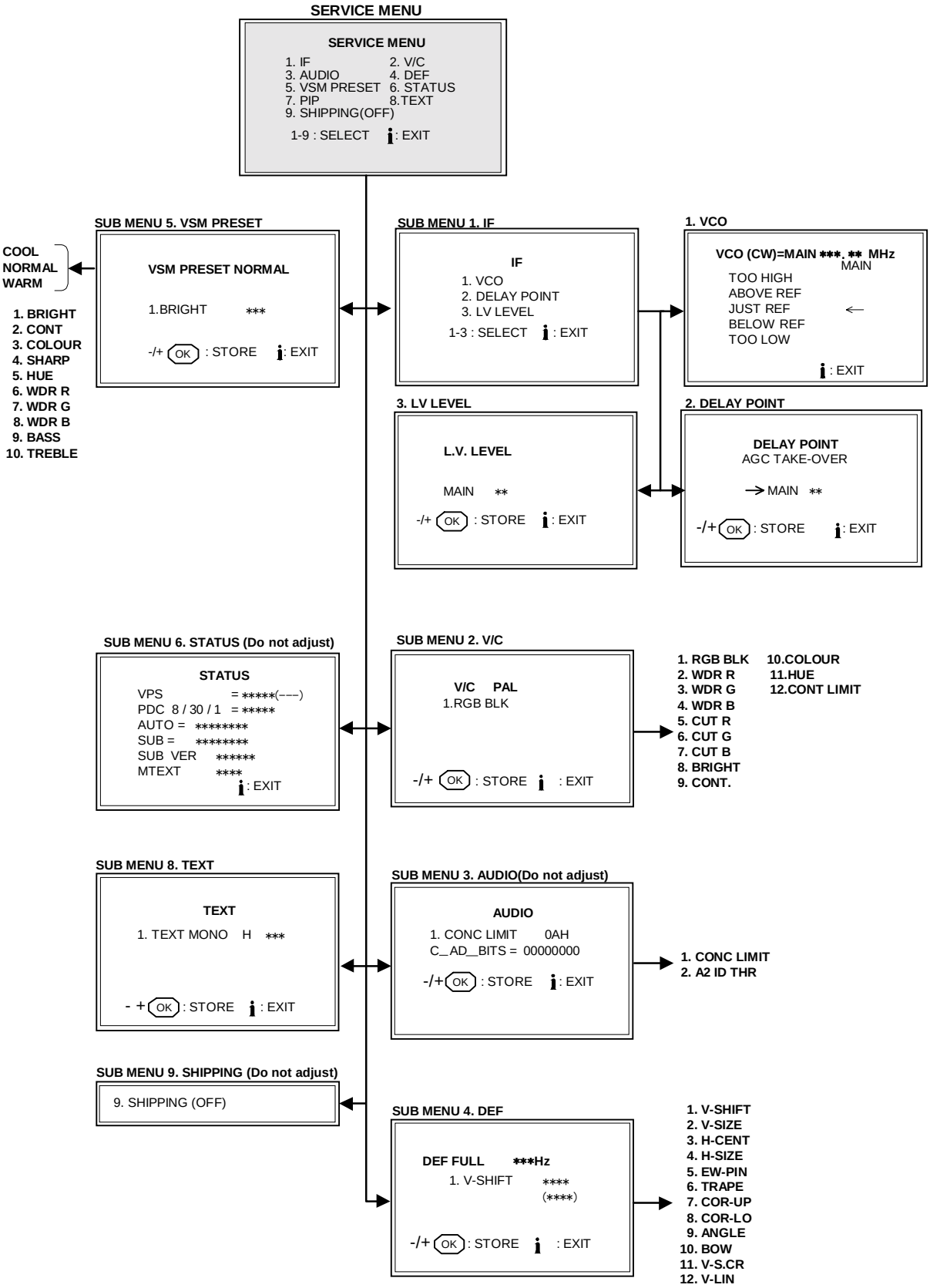
⑤INFOMATION Key ····· Return to the **SERVICE MENU** screen.

3.AUDIO, 6.STATUS and **9.SHIPPING**

3.AUDIO **(Do not adjust)** ····· It is no requirement to adjustment.

6.STATUS **(Do not adjust)** ····· This mode displayed monitor of VPS. (Video Program Systems)

9.SHIPPING **(Do not adjust)** ····· This mode is set the initial setting value of user setting values, you need not to use it for service.



SUB MENU SCREEN

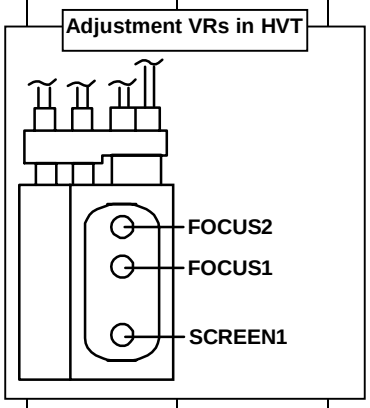
ADJUSTMENT

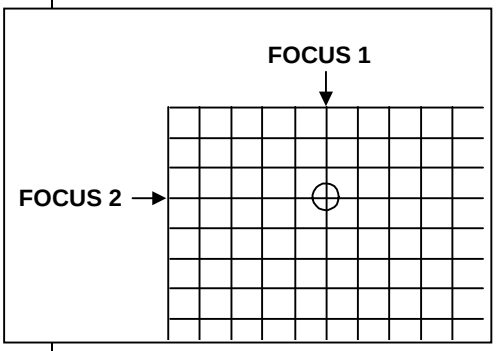
CHECK ITEMS BEFORE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 Power supply	**Signal generator** **DC voltmeter**	**TP-91(B1)** **TP-E(GND ⏚)** **[X connector on POWER & DEF PWB]**		1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 1.RGB BLK with FUNCTION UP/DOWN key. 4. Press the FUNCTION LEFT/RIGHT key, the whole black screen display. 5. Connect a DC voltmeter to TP-91(B1) and TP-E(GND ⏚). 6. Make sure that the voltage is DC139.0V±2.0V.
Check of High voltage	**Signal generator** **High-voltage meter**	**CRT anode**		1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 1.RGB BLK with FUNCTION UP/DOWN key. 4. Press the FUNCTION LEFT/RIGHT key, the whole black screen display. 5. Connect a High-voltage meter to CRT ANODE 6. Make sure that the voltage is the 31.5kV $^{+1.0kV}_{-1.5kV}$.

FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	**Signal generator**		**FOCUS 1** **FOCUS 2** **[In HVT]**	1. Receive a cross-hatch signal. Change the ASPECT mode to FULL. 2. By turning the FOCUS 1 VR, adjust the picture so that the 6th vertical line from the left side of the cross-hatch picture becomes thinnest. 3. By turning the FOCUS 2 VR, adjust the picture so that the 4th horizontal line from the upper side of the cross-hatch picture becomes thinnest. 4. Carry out adjustment by repeating the steps 2 and 3 above. 5. Make sure that when the screen is darkened, the lines remain in good focus.

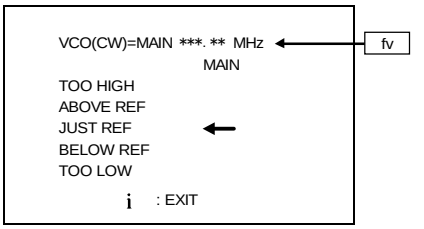




IF CIRCUIT Adjustment

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr>
<td>Adjustment of VCO</td>
<td>Remote control unit</td>
<td></td>
<td>P.CW TRANSF.
P.L_VL CW TRANSF.
[On IF PWB]</td>
<td>
● Under normal conditions, it is no adjustment required.
● It must not adjust without signal.
1. Select 1.IF from the SERVICE MENU.
2. Press 1 key and select 1.VCO.
3. Receive any broadcast with the remote control unit.
4. Turn the core of P. CW TRANSF. until the arrow mark (←) on the screen points TOO HIGH (Step 1).
5. Turn the core of P. CW TRANSF. until the arrow mark (←) on the screen points TOO LOW (Step 2).
6. Then slowly turn back the core of P. CW TRANSF. until the arrow mark (←) on the screen points JUST REF (Step 3).
7. Press the INFORMATION key three times to return to normal screen.
8. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.

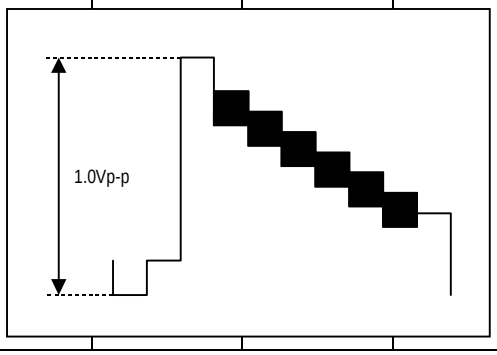
[AV-32WL1EU/AV-32WL1EI]
9. Press the FUNCTION UP/DOWN key on the remote control unit, and receive the SECAM L broadcast.
10. Turn the core of P.L_VL CW TRANSF. to adjust as same steps as 4-6 above.
</td>
</tr>
<tr>
<td>Adjustment of DELAY POINT</td>
<td>Remote control unit</td>
<td></td>
<td>2. DELAY POINT
(AGC TAKE-OVER)</td>
<td>
1. Receive a black and white signal (colour off).
2. Select 1.IF from the SERVICE MENU.
3. Select 2.DELAY POINT by pressing the 2 key on the remote control unit.
4. Adjust the FUNCTION LEFT/RIGHT key until video noise disappears.
5. Press the OK key and memorize the set value.
6. Turn to other channels and make sure that there are no irregularities.
</td>
</tr>
</table>



Screen display	Step 1 →	Step 2 →	Step 3
TOO HIGH	←	—	—
ABOVE REFERENCE	—	—	—
JUST REFERENCE	—	—	←
BELOW REFERENCE	—	—	—
TOO LOW	—	←	—

Setting item (Adjustment item)	Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	0～63	35

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of LV LEVEL [Except for AV-32WL1EK]	**Signal generator** **Oscilloscope [H-rate]** **Remote control unit**	**EXT-1 ⑲pin (Video OUT)**	**3. LV LEVEL**	1. Receive a SECAM-L full field colour bar signal (100% white). 2. Connect an oscilloscope terminated 75Ω to EXT-1 terminal of⑲ pin (Video out). 3. Select 1. IF from the SERVICE MENU. 4. Press 3 key and select 3.LV LEVEL. 5. Adjust the LV LEVEL by FUNCTION LRFT/RIGHT key and make the wave detector output 1.0Vp-p. 6. Press the OK key and memorize the set value.



VSM PRESETTING

Item	Measuring instrument	Test point	Adjustment parts	Description
Setting of VSM PRESET ADJUST	**Remote control unit**		**1. BRIGHT** **2. CONT** **3. COLOUR** **4. SHARP** **5. HUE** **6. WDR R** **7. WDR G** **8. WDR B** **9. BASS** **10. TREBLE**	1. Select the COOL mode of the PICTURE SETTING of TINT in the MENU by the remote control unit. 2. Select 5.VSM PRESET from the SERVICE MENU. 3. Adjust the FUNCTION UP/DOWN and LEFT/RIGHT key to bring the set values of 1.BRIGHT～10.TREBLE to the values shown in the table below. 4. Press the OK key and memorize the set value. 5. Respectively select the VSM PRESET mode for NORMAL and WARM, and make similar adjustment as in 3 above. 6. Press the MENU key and memorize the set value. * Refer to OPERATING INSTRUCTIONS for the PICTURE SETTING.

SETTING VALUES OF VSM PRESET

Setting item \ PICTURE MODE	COOL	NORMAL	WARM
1. BRIGHT	-1	+0	+0
2. CONT.	+12	+0	-8
3. COLOUR	+1	-1	-2
4. SHARP	+3	+0	+0
5. HUE	+0	+0	+0
6. WDR R	-16	+5	+11
7. WDR G	-4	+6	+5
8. WDR B	+2	+0	-6
9. BASS	+0	+0	+0
10.TREBLE	+0	+0	+0

VIDEO/CHROMA CIRCUIT ADJUSTMENT

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

The setting values of the SECAM mode except for the AV-32WL1EK.

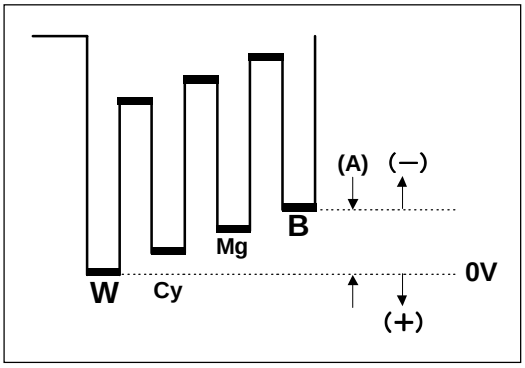
Setting Item (Adjustment Item)	Initial setting value	
	PAL / SECAM	NTSC 3.58 NTSC 4.43
1.RGB BLK	———	———
2.WDR R	+010	———
3.WDR G	-007	———
4.WDR B (Do not adjust)	+000	———
5.CUT R	+000	———
6.CUT G	+000	———

Colour system / Setting item	Initial setting value	
	PAL / SECAM	NTSC 3.58 NTSC 4.43
7.CUT B	+000	———
8.BRIGHT	+000	———
9.CONT	+012	———
10.COLOUR	-008	-011
11.HUE	——	-002
12.CONT. LIMIT(Do not adjust)	+001	——

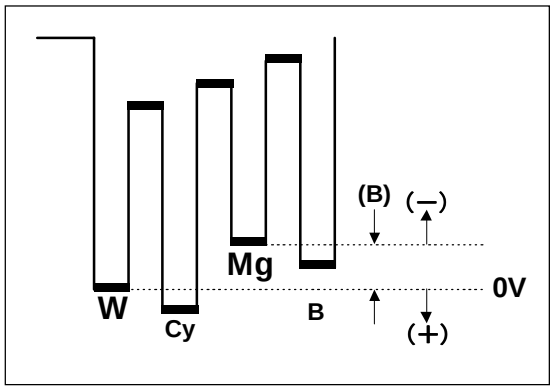
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE	**Signal generator** **Remote control unit**		**2.WDR R** **3.WDR G** **5.CUT R** **6.CUT G** **7.CUT B**	● Set the PICTURE SETTING of TINT to NORMAL. 1. Receive the black and white signal(colour off). 2. Select 2. V/C from the SERVICE MENU. 3. Modify 2. WDR R and 3.WDR G data to adjust the white balance (high light). 4. Modify 5. CUT R, 6. CUT G and 7. CUT B data to adjust the white balance (low light). 5. Press the OK key and memorize the set value.
Adjustment of SUB BRIGHT	**Remote control unit**		**8.BRIGHT**	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.BRIGHT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION LEFT/RIGHT key. 5. If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. 6. Press the OK key and memorize the set value.
Adjustment of SUB CONT.	**Remote control unit**		**9.CONT**	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 9.CONT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION LEFT/RIGHT key. 5. If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast. 6. Press the OK key and memorize the set value.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR I	**Remote control unit**		**10.COLOUR**	**[Method of adjustment without measuring instrument]**
			PAL COLOUR	1. Receive PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 10.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value for PAL COLOUR with the FUNCTION LEFT/RIGHT key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the OK key and memorize the set value.
			SECAM COLOUR **[Except for the AV-32WL1EK]**	1. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR in the same manner as for above.
			NTSC 3.58 COLOUR	1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal. 2. Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above.
			NTSC 4.43 COLOUR	1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR Ⅱ	**Signal generator** **Oscilloscope** **Remote control unit**	**TP-47B TP-E(⏚) [CRT SOCKET PWB]**	**10.COLOUR**	**[Method of adjustment using measuring instrument]**
			PAL COLOUR	1. Receive the PAL full field colour bar signal(75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 10.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value of PAL COLOUR with the FUNCTION LEFT/RIGHT key. 5. Connect the oscilloscope between TP-47B and TP-E 6. Adjust PAL COLOUR and bring the value of (A) in the illustration to **-3V** (voltage difference between white (w) and blue (B)). 7. Press the OK key and memorize the setting value.
			SECAM COLOUR **[Except for the AV-32WL1EK]**	1. Receive the SECAM full field colour bar signal(75% white). 2. Set the initial setting value of SECAM COLOUR with the FUNCTION LEFT/RIGHT key. 3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to **-6V**(W～B). 4. Press the OK key and memorize the setting value.
			NTSC COLOUR	1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION LEFT/RIGHT key. 3. Adjust NTSC 3.58 COLOUR and bring the value of (A) of the illustration to **-3V**(W～B). 4. Press the OK key and memorize the setting value.
			NTSC 4.43 COLOUR	1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB HUE Ⅰ	**Remote control unit**		**11.HUE**	**[Method of adjustment without measuring instrument]**
			NTSC 3.58 HUE	1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 11.HUE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 HUE with the FUNCTION LEFT/RIGHT key. 5. If you cannot get the best hue with the initial setting value, make fine adjustment until you get the best hue. 6. Press the OK key and memorize the set value.
			NTSC 4.43 HUE	1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.
Adjustment of SUB HUE Ⅱ	**Signal generator** **Oscilloscope** **Remote control unit**	**TP-47B** **TP-E(⏚)** **[CRT SOCKET PWB]**	**11.HUE**	**[Method of adjustment using measuring instrument]**
			NTSC 3.58 HUE	1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 11.HUE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 HUE with the FUNCTION LEFT/RIGHT key. 5. Connect the oscilloscope between TP-47B and TP-E 6. Adjust NTSC 3.58 HUE to bring the value of (B) in the illustration to **-13V** (voltage difference between white (W) and magenta(Mg)). 7. Press the OK key and memorize the setting value
			NTSC 4.43 HUE	When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



DEFLECTION CIRCUIT ADJUSTMENT

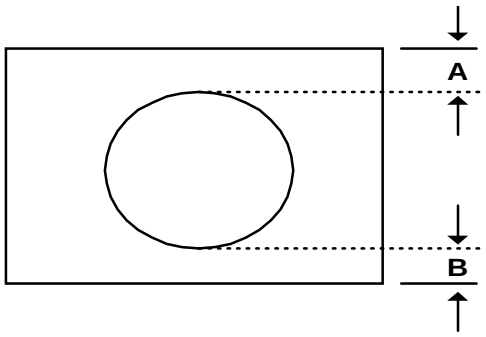
There are 2 modes of the adjustment (1) 100Hz mode (①FULL ②PANORAMIC, ③16:9 ZOOM SUBTITLE), (2) 120Hz mode (each aspect mode) ・・・・・・ depending upon the kind of signals (vertical frequency 100Hz / 120Hz).

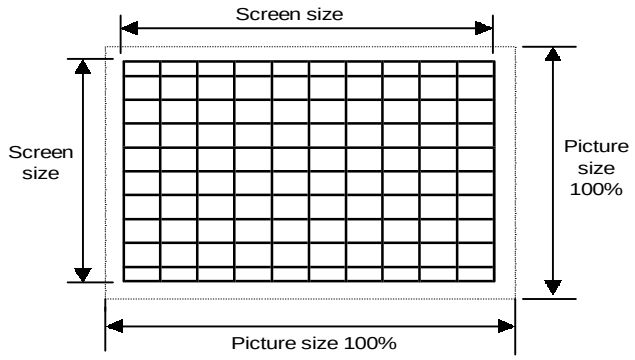
- **When the 100Hz FULL mode has been established, the setting of the other modes will be done automatically.**
- **However, if the picture quality has not been optimized, adjust each mode again, respectively.**
- **The adjustment using the remote control unit is made on the basis of the initial setting values.**
- **The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
- **Regular and Zoom switching is conducted not by the Deflection circuit, but by the 100 Hz PWB. Therefore, the deflection system cannot be adjusted in these modes.**

INITIAL SETTING VALUE OF THE DEFLECTION CIRCUITS

Setting item	Adjustment name	FULL		PANORAMIC		16 : 9 ZOOM SUBTITLE	
		100Hz	120Hz	100Hz	120Hz	100Hz	120Hz
1.V- SHIFT	Vertical center	-1	-1	-2	0	-7	-1
2.V-SIZE	Vertical height	+17	-2	+4	+1	+4	0
3.H-CENT	Horizontal center	-3	-1	+1	0	0	0
4.H-SIZE	Horizontal width	-11	-2	0	0	0	0
5.EW-PIN	Side pin correction	+35	-1	+7	-1	+6	+2
6.TRAPEZ	Trapezoidal distortion correction	+6	0	+1	0	0	0
7.COR-UP	Corner upper	+7	+2	+1	+1	+3	0
8.COR LO	Corner lower	+2	0	-9	+1	-8	-3
9.ANGLE	Angle correction	0	0	0	0	0	0
10.BOW	Bow-shaped distortion correction	0	0	0	0	0	0
11.V-S.CR	Vertical height correction	-3	0	+7	0	+7	0
12.V-LIN	Vertical Linearity	-3	+2	-22	0	-30	0

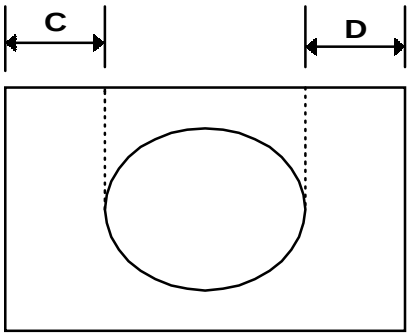
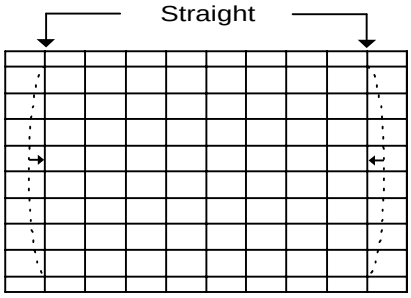
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V-SHIFT	**Signal generator** **Remote control unit**		**1.V- SHIFT**	● At first, change the ASPECT mode to FULL. 1. Receive the circle pattern signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.V-SHIFT with the FUNCTION UP/DOWN key. 4. Adjust V-SHIFT to make **A = B** as shown in figure. 5. Press the OK key and memorize the set value.
Adjustment of V-SIZE	**Signal generator** **Remote control unit**		**2.V-SIZE**	6. Receive the cross-hatch signal. 7. Select 2.V-SIZE and set the initial setting value. 8. Adjust V-SIZE and make sure that the vertical screen size of the picture size is in the bellow table. 9. Press the OK key and memorize the set value. 10. Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the vertical screen size is in the table below as same as 50Hz adjustment condition. 11. Press the OK key and memorize the set value.



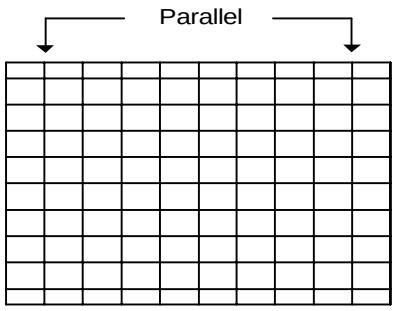


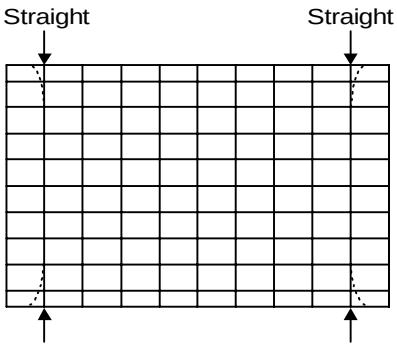
[VERTICAL SIZE]

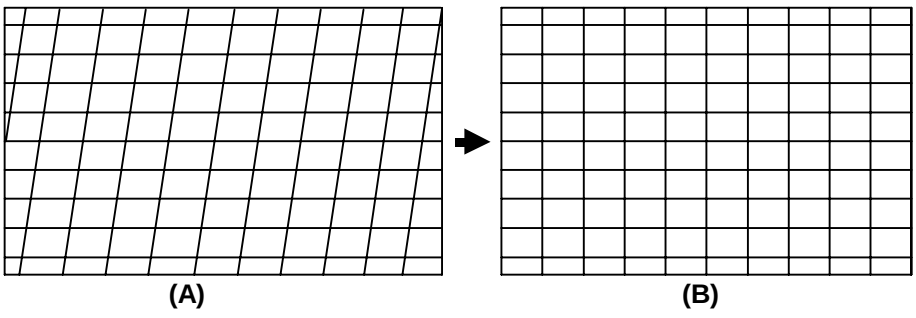
ASPECT MODE / SCREEN	FULL	PANORAMIC	16:9 ZOOM SUB TITLE
SCREEN TOP	92%	87%	70%
SCREEN BOTTOM	92%	87%	83%

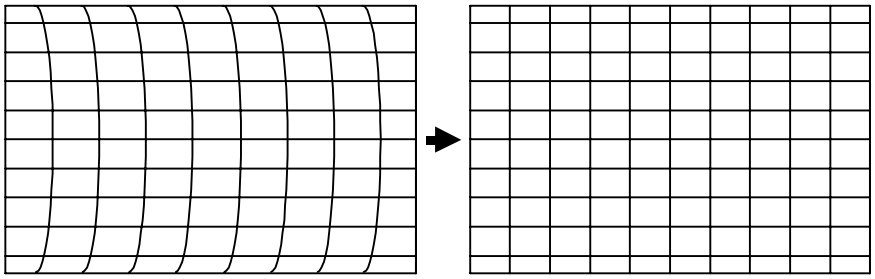
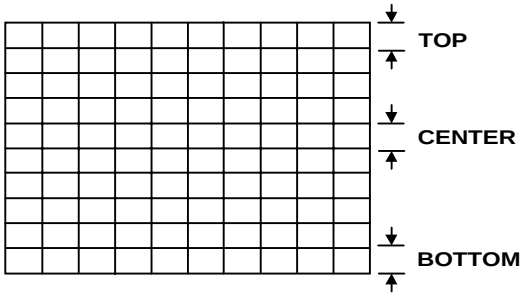
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of H.CENTER</td><td>Signal generator
Remote control unit</td><td></td><td>3.H-CENT.</td><td>12. Receive the circle pattern signal.
13. Select 3.H-CENT and set the initial setting value.
14. Adjust H-CENT to make C=D.
15. Press the OK key and memorize the set value.</td></tr>
<tr><td colspan="5"> 
</td></tr>
<tr><td>Adjustment of H.SIZE</td><td>Signal generator
Remote control unit</td><td></td><td>4.H-SIZE</td><td>16. Receive the cross-hatch signal.
17. Select 4.H-SIZE and set the initial setting value.
18. Adjust H-SIZE and make sure that the horizontal screen size of the picture size is in the bellow table.
19. Press the OK key and memorize the set value.
20. Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the horizontal screen size is in the table below.
21. Press the OK key and memorize the set value.</td></tr>
<tr><td colspan="5">[HORIZONTAL SIZE]
<table>
<tr><td>ASPECT SIZE</td><td>FULL</td><td>PANORAMIC</td><td>16:9 ZOOM SUBTITLE</td></tr>
<tr><td>H SIZE</td><td>92%</td><td>95%</td><td>92%</td></tr>
</table></td></tr>
<tr><td>Adjustment of EW-PIN</td><td>Signal generator
Remote control unit</td><td></td><td>5.EW-PIN</td><td>22. Select 5.EW-PIN and set the initial setting value
23. Adjust EW-PIN and make the 2nd vertical lines at the left and right edges of the screen straight. Also make sure that the 3rd vertical lines are straight.
24. Press the OK key and memorize the set value.</td></tr>
<tr><td colspan="5"> 
</td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of TRAPEZ	**Signal generator** **Remote control unit**		**6.TRAPEZ**	25. Receive the cross-hatch signal. 26. Select 6.TRAPEZ with the FUNCTION UP/DOWN key. 27. Set the initial setting value of TRAPEZ with the FUNCTION LEFT/RIGHT key. 28. Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel . 29. Press the OK key and memorize the set value.
Adjustment of CORNER UP/ LOW	**Signal generator** **Remote control unit**		**7.COR-UP** **8.COR-LO**	30. Select 8.COR-LO with the FUNCTION UP / DOWN key. 31. Set the initial setting value of COR-LO with the FUNCTION LEFT/RIGHT key. 32. Adjust COR-LO, and bring the line to straight at the corner of the screen bottom. 33. Select 7.COR-UP with the FUNCTION UP / DOWN key. 34. Set the initial setting value of COR-UP with the FUNCTION LEFT/RIGHT key. 35. Adjust COR-UP, and bring the line to straight at the corner of the screen top. 36. Press the OK key and memorize the set value.
Adjustment of ANGLE	**Signal generator** **Remote control unit**		**9.ANGLE**	● In case where there is a parallelogrammical distortion of images on the screen like as shown in Fig.A. 37. Select 9.ANGLE with the FUNCTION UP / DOWN key. 38. Adjust 9. ANGLE, and bring the VERTICAL lines to straight as shown in Fig.B. 39. Press the OK key and memorize the set value.





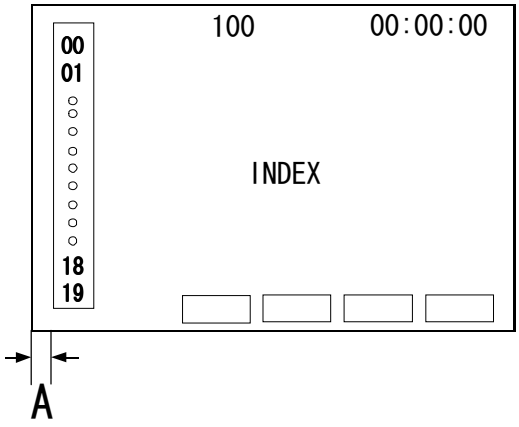


Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of BOW	**Signal generator** **Remote control unit**		**10.BOW**	● In case where there is a bow-shaped distortion of images on the screen as shown in Fig.C. 40. Select 10.BOW with the FUNCTION UP/DOWN key. 41. Adjust 10.BOW, and bring the VERTICAL lines to straight. 42. Press the MENU key and memorize the set value as shown in Fig.D.
				 **(C)** **(D)**
Adjustment of V-S.CR & V.LINE	**Signal generator** **Remote control unit**		**11.V-S.CR** **12.V.LIN.**	● When the vertical linearity has been deteriorated remarkably, perform the following steps. 43. Receive a cross-hatch signal. 44. Select **12. V.LIN** with the FUNCTION UP / DOWN key. 45. Set the initial setting value of **12. V.LIN** with the FUNCTION LEFT/RIGHT key. 46. Select **11. V-S.CR**. with the FUNCTION UP / DOWN key. 47. Set the initial setting value of **11. V-S.CR**. with the FUNCTION LEFT/RIGHT key. 48. Adjust **12. V.LIN** and **11. V-S.CR**. so that the spaces of each line on **TOP, CENTER**, and **BOTTOM** become uniform. NOTE : Do not adjust “PANORAMIC” & “16 : 9 ZOOM SUBTITLE” mode.
				 **TOP** **CENTER** **BOTTOM**
				At first the adjustment in 100Hz-FULL mode should be done, then the data for the other aspect mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 120Hz (NTSC EXT mode) FULL mode. If the adjustment in 100Hz each aspect mode has been done and stored, the data for the same aspect modes in 120Hz is corrected in the respective value. Only the data for the other aspect mode in 120Hz is corrected for itself.

TEXT CIRCUIT ADJUSTMENT

Setting item	Variable range	Initial setting value
1. TEXT MONO H	00H ～ FFH	0DH
2. TEXT MIX H	00H ～ FFH	00H

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of TEXT MONO HORIZONTAL POSITION			**1.TEXT MONO H**	● Under normal conditions, no adjustment is required. 1. Receive any broadcast which includes the TELETEXT signal. 2. Select 8. TEXT from SERVICE MENU. 3. Select 1.TEXT MONO H with the FUNCTION UP/DOWN key. 4. Push TEXT key to get a picture of “TEXT-MONO H”. 5. Push “SUBPAGE” key. It gets a picture as shown in the left figure. 6. Adjust the value of the distance “d” as shown in the left figure with the FUNCTION LEFT/RIGHT key. Push “SUBPAGE” key to check adjustment every adjust. 7. Press the OK Key, and memorize the set values.



MODEL	A [mm]
ALL MODELS	5～20mm

AUDIO CIRCUIT ADJUSTMENT

Do not adjust 3. AUDIO of the SERVICE MENU as it requires no adjustment.

3. AUDIO

Setting item	Variable range	Initial setting value (fixed)
1. CONC LIMIT***(Do not adjust)***	00H～FFH	0AH
2. A2 ID THR***(Do not adjust)***	00H～FFH	19H

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

■ **USING PW BOARD & REMOTE CONTROL UNIT** ····· **37**
■ **REMOTE CONTROL UNIT PARTS LIST** ····· **37**
■ **EXPLODED VIEW PARTS LIST** ····· **38**
■ **EXPLODED VIEW [Ⅰ]** ····· **38**
■ **EXPLODED VIEW [Ⅱ]** ····· **39**
■ **PRINTED WIRING BOARD PARTS LIST** ····· **40**

AV-32WL1EU / AV-32WL1EI

- MAIN PW BOARD ASS'Y ····· **40**
- POWER & DEF PW BOARD ASS' Y ····· **44**
- CRT SOCKET PW BOARD ASS'Y ····· **46**
- FRONT CONTROL PW BOARD ASS'Y ····· **47**
- SIDE CONTROL JACK PW BOARD ASS'Y ····· **47**
- BBE PW BOARD ASS'Y ····· **47**
- IF PW BOARD ASS'Y ····· **48**
- AV TERMINAL PW BOARD ASS'Y ····· **49**
- SUB MICON & AUTO PANORAMA PW BOARD ASS'Y ····· **49**
- 100Hz PW BOARD ASS'Y ····· **50**

AV-32WL1EK

- MAIN PW BOARD ASS'Y ····· **53**
- POWER & DEF PW BOARD ASS' Y ····· **57**
- CRT SOCKET PW BOARD ASS'Y ····· **57**
- FRONT CONTROL PW BOARD ASS'Y ····· **57**
- SIDE CONTROL JACK PW BOARD ASS'Y ····· **57**
- BBE PW BOARD ASS'Y ····· **57**
- IF PW BOARD ASS'Y ····· **57**
- AV TERMINAL PW BOARD ASS'Y ····· **58**
- SUB MICON & AUTO PANORAMA PW BOARD ASS'Y ····· **58**
- 100Hz PW BOARD ASS'Y ····· **58**

■ **PACKING** ····· **59**
■ **PACKING PARTS LIST** ····· **60**

USING PW BOARD & REMOTE CONTROL UNIT

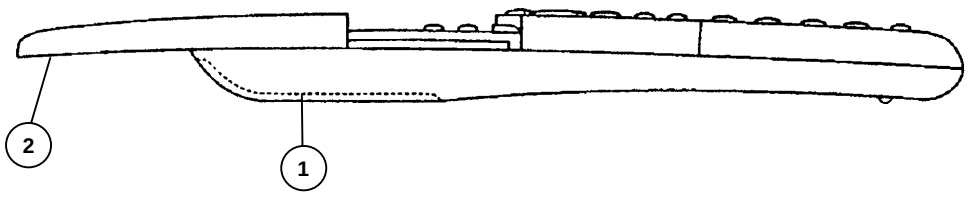
Model / PWB ASS'Y	AV-32WL1EU	AV-32WL1EI	AV-32WL1EK
MAIN PWB	SMD-1006A-U2	←	SMD-1903A-U2
POWER & DEF PWB	SMD-2006A-U2	←	←
CRT SOCKET PWB	SMD-3006A-U2	←	←
FRONT CONTROL PWB	SMD-8007A-U2	←	←
SIDE CONTROL JACK PWB	SMD-8107A-U2	←	←
IF PWB	SMD0F003A-U2	←	SMD0F903A-U2
SUB MICON & AUTO PANORAMA PWB	SMD0W003A-U2	←	←
100Hz PWB	SMD0Z005A-U2	←	←
BBE PWB	SMD0A001A-U2	←	←
AV TERMINAL PWB	SMD0J003A-U2	←	←
REMOTE CONTROL UNIT	RM-C54-1C	RM-C55-1C	←

REMOTE CONTROL UNIT PARTS LIST

[AV-32WL1EU: RM-C54-1C]

[AV-32WL1EI / AV-32WL1EK : RM-C55-1C]

⚠ Ref.No.	Part No.	Part Name	Description
1	2AA030733	BATTERY COVER	
2	2AA030732	SLIDE COVER	(RM-C54-1C)
2	2AA030740	SLIDE COVER	(RM-C55-1C)



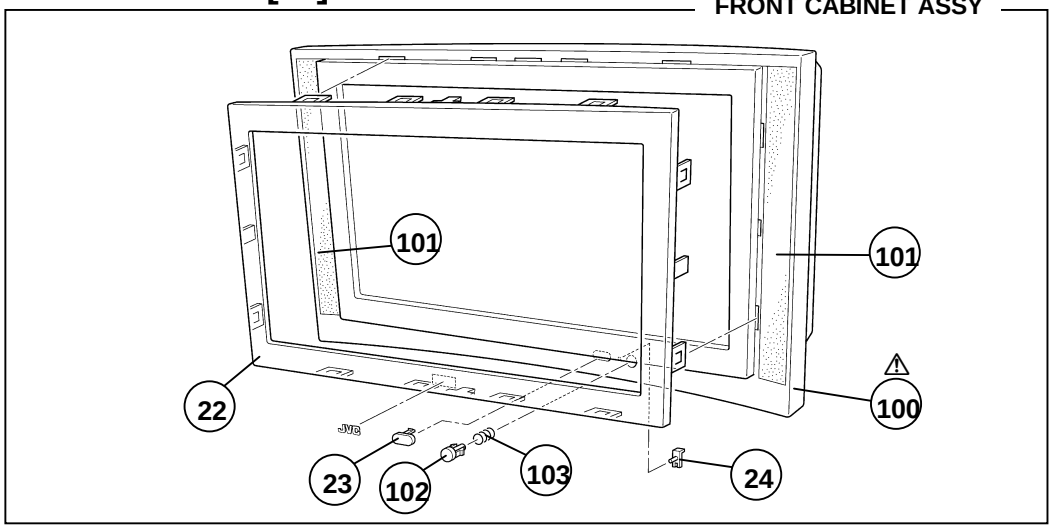
AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description
⚠	L01	QQW0066-001	DEG COIL	
⚠	L03	CELD904-001	ROTATION COIL	
⚠	T2551	QQH0054-002-I2	H.V.TRANSF.	(SERVICE)Within POWER & DEF PWB
⚠	V01	W76ERF031X044	CRT	Inc.DY,PC,WED
⚠	1	LC10853-002C-U	REAR COVER	
	2	QYSBSAG4016N	TAPPING SCREW	(×11)For REAR COVER
⚠	3	LC20380-006A-U	RATING LABEL	For ENG/ESP/FRA(AV-32WL1EU)
⚠	**4**	**LC20379-006A-U**	**RATING LABEL**	**For ENG/GER/ITA(AV-32WL1EU)**
⚠	**4**	**LC20080-009A-U**	**RATING LABEL**	**(AV-32WL1EI)**
⚠	**4**	**LC20075-030A-U**	**RATING LABEL**	**(AV-32WL1EK)**
⚠	5	LC10716-001E-U	CHASSIS BASE	
⚠	6	LC10717-004A-U	AV BOARD	
	7	QYSBSB3012M	TAPPING SCREW	(×4)For AV BOARD
⚠	8	LC10855-001B-U	CONTROL BASE	
⚠	9	LC10856-001B-U	SIDE CONTROL BASE	
	11	CHFD125-11BD	FFC WIRE	
⚠	**12**	**QMPK160-185-JC**	**POWER CORD**	**(AV-32WL1EU)**
⚠	**12**	**QMPN130-185-JC**	**POWER CORD**	**(AV-32WL1EI)**
⚠	**12**	**QMPN130-185-JC**	**POWER CORD**	**(AV-32WL1EK)**
⚠	13	CM46618-A01-E	POWER CORD CLAMP	
	14	CHGB0029-0C	BRAIDED ASSY	
	15	CHGB0017-0B	BRAIDED SUB ASSY	(×2)
⚠	16	QNZ0407-001	ANODE WIRE ASSY	
⚠	17	LC30789-002A-U	WARNING LABEL	
	18	WJX0006-001A	E-COAXIAL ASSY	
	19	QQR0491-001	FILTER	
	20	CE42112-002	PALJ CONNECTOR	
	21	LC31205-002A-U	CONTROL SHEET	
	22	LC10851-002B-U	FRONT PANEL	
	23	LC31203-001A	REMOCON WINDOW	
	24	LC31202-001A	LED LENS	
	25	LC10720-001B-U	ADAPTER	(×2)
	26	LC40226-001A	SPACER	(×4)
	27	LC40506-001A	TAPPING SCREW	(×4)
	28	QAS0046-001	SPEAKER	(×2)SP01,SP02
	30	LC10858-001A-U	SPEAKER BOX	(×2)
	31	AEM3029-A11-E	STICK SHEET	(×4)
	32	LC20603-002A-U	SCREW CAP	(×4)
⚠	100	LC10854-001A-U	F CABI ASSY	Inc.No.101～103
	101	LC20602-001A	SPEAKER SHEET	(×2)
	102	LC31201-002A-U	POWER KNOB	(SERVICE)
	103	CM35235-003-H	SPRING	

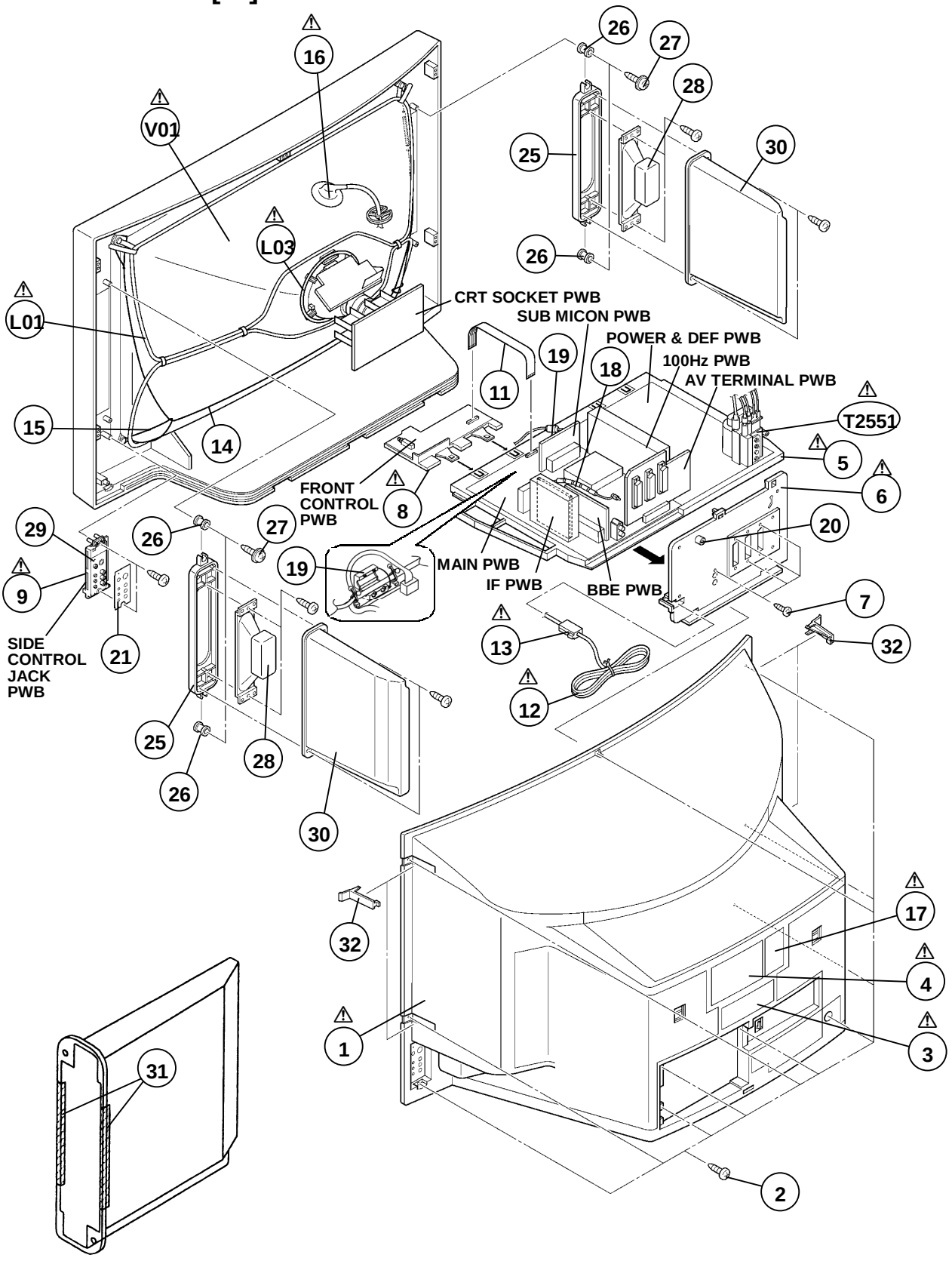
EXPLODED VIEW [I]

FRONT CABINET ASSY



AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

EXPLODED VIEW [Ⅱ]



AV-32WL1EU / AV-32WL1EI

PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y (SMD-1006A-U2)

⚠	Symbol No.	Part No.	Part Name	Description	
	RESISTOR				
	R1002	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1003-06	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1101-03	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1104	NRSA02J-681X	MG R	680Ω 1/10W	J
	R1105	NRSA02J-392X	MG R	3.9kΩ 1/10W	J
	R1107	NRSA02J-391X	MG R	390Ω 1/10W	J
	R1108	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1109	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1110	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R1111	NRSA02J-821X	MG R	820Ω 1/10W	J
	R1112	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1113	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1121-22	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R1123	NRSA02J-152X	MG R	1.5kΩ 1/10W	J
	R1124	NRSA02J-821X	MG R	820Ω 1/10W	J
	R1125-27	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1128	NRSA02J-153X	MG R	15kΩ 1/10W	J
	R1131-33	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1134	NRSA02J-681X	MG R	680Ω 1/10W	J
	R1135	NRSA02J-561X	MG R	560Ω 1/10W	J
	R1136	NRSA02J-681X	MG R	680Ω 1/10W	J
	R1137	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1138	NRSA02J-391X	MG R	390Ω 1/10W	J
	R1140	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1141	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R1142	NRSA02J-821X	MG R	820Ω 1/10W	J
	R1151	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1152-53	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1154	NRSA02J-681X	MG R	680Ω 1/10W	J
	R1155	NRSA02J-561X	MG R	560Ω 1/10W	J
	R1156	NRSA02J-681X	MG R	680Ω 1/10W	J
	R1157	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1158	NRSA02J-391X	MG R	390Ω 1/10W	J
	R1160	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1161	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R1162	NRSA02J-821X	MG R	820Ω 1/10W	J
	R1171	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1172	NRSA02J-562X	MG R	5.6kΩ 1/10W	J
	R1173	NRSA02J-221X	MG R	220Ω 1/10W	J
	R1174	NRSA02J-272X	MG R	2.7kΩ 1/10W	J
	R1175	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R1176	NRSA02J-392X	MG R	3.9kΩ 1/10W	J
	R1177	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R1178	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R1179	NRSA02J-272X	MG R	2.7kΩ 1/10W	J
	R1201-02	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1203	NRSA02J-750X	MG R	75Ω 1/10W	J
	R1204	QRK126J-151X	C R	150Ω 1/2W	J
	R1205	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1206	QRG01GJ-101	OM R	100Ω 1W	J
	R1207	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R1208	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R1209	NRSA02J-683X	MG R	68kΩ 1/10W	J
	R1210	NRSA02J-153X	MG R	15kΩ 1/10W	J
	R1211	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1212	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R1213	NRSA02J-273X	MG R	27kΩ 1/10W	J
	R1214	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1215	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1216	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1217	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1218	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1219	NRSA02J-823X	MG R	82kΩ 1/10W	J
	R1220	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R1221	NRSA02J-391X	MG R	390Ω 1/10W	J

⚠	Symbol No.	Part No.	Part Name	Description	
	RESISTOR				
	R1222	NRSA02J-823X	MG R	82kΩ 1/10W	J
	R1223	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R1224	NRSA02J-391X	MG R	390Ω 1/10W	J
	R1225-26	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R1227	NRSA02J-104X	MG R	100kΩ 1/10W	J
	R1228	NRSA02J-680X	MG R	68Ω 1/10W	J
	R1229	QRK126J-181X	C R	180Ω 1/2W	J
	R1231	QRG01GJ-101	OM R	100Ω 1W	J
	R1232	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1233	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1242	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R1243	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R1244	NRSA02J-683X	MG R	68kΩ 1/10W	J
	R1245	NRSA02J-153X	MG R	15kΩ 1/10W	J
	R1246	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1247	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R1248	NRSA02J-273X	MG R	27kΩ 1/10W	J
	R1249	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1250	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1251	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1252	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1253	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1254	NRSA02J-823X	MG R	82kΩ 1/10W	J
	R1255	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R1256	NRSA02J-391X	MG R	390Ω 1/10W	J
	R1257	NRSA02J-823X	MG R	82kΩ 1/10W	J
	R1258	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R1259	NRSA02J-391X	MG R	390Ω 1/10W	J
	R1260-61	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R1262	NRSA02J-104X	MG R	100kΩ 1/10W	J
	R1263	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1264	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1265	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1266	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1267-69	NRSA02J-750X	MG R	75Ω 1/10W	J
	R1277-79	NRSA02J-750X	MG R	75Ω 1/10W	J
	R1280	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R1281	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R1282	NRSA02J-683X	MG R	68kΩ 1/10W	J
	R1283	NRSA02J-153X	MG R	15kΩ 1/10W	J
	R1284	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1285	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R1286	NRSA02J-273X	MG R	27kΩ 1/10W	J
	R1287	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R1288	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1289	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1290	NRSA02J-222X	MG R	2.2kΩ 1/10W	J
	R1291	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R1292	NRSA02J-471X	MG R	470Ω 1/10W	J
	R1301	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1302	NRSA02J-471X	MG R	470Ω 1/10W	J
	R1303	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1304	NRSA02J-471X	MG R	470Ω 1/10W	J
	R1305	NRSA02J-221X	MG R	220Ω 1/10W	J
	R1306	NRSA02J-271X	MG R	270Ω 1/10W	J
	R1307	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1308	NRSA02J-471X	MG R	470Ω 1/10W	J
	R1309	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1310	NRSA02J-471X	MG R	470Ω 1/10W	J
	R1311	NRSA02J-221X	MG R	220Ω 1/10W	J
	R1312	NRSA02J-271X	MG R	270Ω 1/10W	J
	R1313	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1314-15	NRSA02J-471X	MG R	470Ω 1/10W	J
	R1317-18	NRSA02J-101X	MG R	100Ω 1/10W	J
	R1320	NRSA02J-221X	MG R	220Ω 1/10W	J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1323-24	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1326-29	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1330	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1331	NRSA02J-101X	MG R	100Ω 1/10W J
	R1332-33	NRSA02J-471X	MG R	470Ω 1/10W J
	R1334-35	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1336	NRSA02J-101X	MG R	100Ω 1/10W J
	R1337	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1338-40	NRSA02J-101X	MG R	100Ω 1/10W J
	R1341	NRSA02J-183X	MG R	18kΩ 1/10W J
	R1342	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1343-44	NRSA02J-101X	MG R	100Ω 1/10W J
	R1345-46	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1347	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1348	NRSA02J-471X	MG R	470Ω 1/10W J
	R1349	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1350	NRSA02J-271X	MG R	270Ω 1/10W J
	R1381	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1382	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1383	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R1384	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1385	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1386	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1387	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1388	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1389	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1390	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1391	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1392	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1395-97	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1398	NRSA02J-101X	MG R	100Ω 1/10W J
	R1401-02	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1403	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1404	QRX01GJ-1R0	MF R	1.0Ω 1W J
	R1405	QRL029J-221	OM R	220Ω 2W J
	R1406	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1407-08	QRX01GJ-1R5	MF R	1.5Ω 1W J
	R1409-10	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1461	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1462	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1463	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1464	NRSA02J-123X	MG R	12kΩ 1/10W J
	R1501	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R1551	NRSA02J-100X	MG R	10Ω 1/10W J
	R1552	NRSA02J-124X	MG R	120kΩ 1/10W J
	R1553	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1554	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1555	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1556	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1557	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1558	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1559	NRSA02J-154X	MG R	150kΩ 1/10W J
	R1560	NRSA02J-100X	MG R	10Ω 1/10W J
	R1561	QRN143J-0R0X	C R	0.0Ω 1/4W J
	R1601	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1602	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1603	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1604	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1605	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1606-07	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1608	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1609	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1610	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1611	NRSA02J-331X	MG R	330Ω 1/10W J
	R1612	NRSA02J-561X	MG R	560Ω 1/10W J
	R1613-14	NRSA02J-123X	MG R	12kΩ 1/10W J
	R1615	NRSA02J-681X	MG R	680Ω 1/10W J
	R1616	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1617-18	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1651	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1652	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R1653	NRSA02J-223X	MG R	22kΩ 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1654	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R1655	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1656-57	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1659-60	QRN143J-2R2X	C R	2.2Ω 1/4W J
	R1661	NRSA02J-561X	MG R	560Ω 1/10W J
	R1665	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1666	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1668	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1669	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1670	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1671	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1682	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1683	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1684	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1685-86	NRSA02J-681X	MG R	680Ω 1/10W J
	R1687-88	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1703-05	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1708	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1709	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1710	NRSA02J-821X	MG R	820Ω 1/10W J
	R1711	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1713-14	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1716	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1718	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1719	NRSA02J-101X	MG R	100Ω 1/10W J
	R1720	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1721-23	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1724-26	NRSA02J-821X	MG R	820Ω 1/10W J
	R1727	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1728	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1729	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1730	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1731	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1732	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1733	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1734	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1735-36	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1738	NRSA02J-183X	MG R	18kΩ 1/10W J
	R1739	NRSA02J-331X	MG R	330Ω 1/10W J
	R1740	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1742	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1743	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1744-46	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1747	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1751-52	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1753	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1754	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1755	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1756-57	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1758-59	NRSA02J-221X	MG R	220Ω 1/10W J
	R1760	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1761-65	NRSA02J-221X	MG R	220Ω 1/10W J
	R1766	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1767	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1768	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1770	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1771	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1772-74	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1775-76	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1777	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1778	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1779	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1780	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1791	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1792	NRSA02J-101X	MG R	100Ω 1/10W J
	R1793	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1794	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1797	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1820	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R1880-82	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1883	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1884-86	NRSA02J-103X	MG R	10kΩ 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description

RESISTOR

	R1888-89	NRSA02J-103X	MG R	10kΩ	1/10W	J
	R1890	NRSA02J-221X	MG R	220Ω	1/10W	J
	R1891	NRSA02J-273X	MG R	27kΩ	1/10W	J
	R1892-96	NRSA02J-221X	MG R	220Ω	1/10W	J
	R1897	QRG029J-220	OM R	22 Ω	2W	J
	R1901	NRSA02J-101X	MG R	100Ω	1/10W	J
	R1902	NRSA02J-223X	MG R	22kΩ	1/10W	J
	R1903	NRSA02J-472X	MG R	4.7kΩ	1/10W	J
	R1904	NRSA02J-223X	MG R	22kΩ	1/10W	J
	R1905	NRSA02J-102X	MG R	1kΩ	1/10W	J

CAPACITOR

	C1001	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1002	QETN1HM-107Z	E CAP.	100µF	50V	M
	C1003	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1004	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1005	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1006	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1007	NCB21HK-222X	C CAP.	2200pF	50V	K
	C1008	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1101-02	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1103	NDC21HJ-181X	C CAP.	180pF	50V	J
	C1104	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1105	QENC1HM-474Z	BP E CAP.	0.47µF	50V	M
	C1106	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1107	QETN1AM-227Z	E CAP.	220µF	10V	M
	C1108	NDC21HJ-120X	C CAP.	12pF	50V	J
	C1109	NDC21HJ-470X	C CAP.	47pF	50V	J
	C1110	NDC21HJ-220X	C CAP.	22pF	50V	J
	C1121-22	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1123	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1124-25	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1128	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1129	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1130	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1131	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1132	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1134	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1135	NDC21HJ-181X	C CAP.	180pF	50V	J
	C1136-39	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1140	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1141	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1151	QETN1AM-227Z	E CAP.	220µF	10V	M
	C1152	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1153	QETN1AM-107Z	E CAP.	100µF	10V	M
	C1155	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1156	NDC21HJ-270X	C CAP.	27pF	50V	J
	C1157	NDC21HJ-220X	C CAP.	22pF	50V	J
	C1161	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1163	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1171	NDC21HJ-221X	C CAP.	220pF	50V	J
	C1172	NDC21HJ-560X	C CAP.	56pF	50V	J
	C1173	NDC21HJ-221X	C CAP.	220pF	50V	J
	C1174	NDC21HJ-121X	C CAP.	120pF	50V	J
	C1192	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1193	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1201	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1202	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1203-04	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1205-06	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1207	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1211	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1212-13	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1214-15	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1216-17	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1218-19	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1220	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1221-22	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1223-24	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1231-33	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1234	NCB21HK-102X	C CAP.	1000pF	50V	K

⚠	Symbol No.	Part No.	Part Name	Description

CAPACITOR

	C1301	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1302	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1303	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1304	QENC1CM-476Z	BP E CAP.	47µF	16V	M
	C1305	QETN1HM-226Z	E CAP.	22µF	50V	M
	C1306	NCB21HK-223X	C CAP.	0.022µF	50V	K
	C1307-08	QENC1HM-105Z	BP E CAP.	1µF	50V	M
	C1309	NDC21HJ-390X	C CAP.	39pF	50V	J
	C1311-13	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1314	NCB21HK-222X	C CAP.	2200pF	50V	K
	C1315	NCB21CK-474X	C CAP.	0.47µF	16V	K
	C1316	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1317	NCB21EK-154X	C CAP.	0.15µF	25V	K
	C1318	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1319	NCB21HK-332X	C CAP.	3300pF	50V	K
	C1320	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1321-22	NDC21HJ-150X	C CAP.	15pF	50V	J
	C1323	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1325-26	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1327	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1328-32	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1342-44	NDC21HJ-220X	C CAP.	22pF	50V	J
	C1345	NDC21HJ-121X	C CAP.	120pF	50V	J
	C1362	NDC21HJ-330X	C CAP.	33pF	50V	J
	C1363-65	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1387-88	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1389-90	QETN0JM-228Z	E CAP.	2200µF	6.3V	M
	C1392	NDC21HJ-680X	C CAP.	68pF	50V	J
	C1396-98	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1403	QFLC2AJ-104Z	M CAP.	0.1µF	100V	J
	C1404	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1405	NDC21HJ-820X	C CAP.	82pF	50V	J
	C1406	QETM1VM-108	E CAP.	1000µF	35V	M
	C1408	QETN1VM-337Z	E CAP.	330µF	35V	M
	C1409-10	QFV71HJ-474Z	MF CAP.	0.47µF	50V	J
	C1412	QFLC2AJ-104Z	M CAP.	0.1µF	100V	J
	C1417-18	QETN1CM-108Z	E CAP.	1000µF	16V	M
	C1419	NCB21HK-682X	C CAP.	6800pF	50V	K
	C1461	QETN1HM-226Z	E CAP.	22µF	50V	M
	C1551-52	NCB21CK-224X	C CAP.	0.22µF	16V	K
	C1553	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1554-55	NCB21CK-224X	C CAP.	0.22µF	16V	K
	C1601-02	QDC31HJ-2R0Z	C CAP.	2.0pF	50V	J
	C1603-04	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1605-06	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1607-08	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1613-14	NDC21HJ-471X	C CAP.	470pF	50V	J
	C1615	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1616-18	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1619	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1620	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1621-24	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1625-26	NDC21HJ-391X	C CAP.	390pF	50V	J
	C1627-28	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1629	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1630	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1631	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1632	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1633-34	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1635	NCB21HK-562X	C CAP.	5600pF	50V	K
	C1636	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1637-38	NDC21HJ-221X	C CAP.	220pF	50V	J
	C1639-40	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1641	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1642	NCB21HK-562X	C CAP.	5600pF	50V	K
	C1643	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1644-45	NDC21HJ-470X	C CAP.	47pF	50V	J
	C1646	NDC21HJ-820X	C CAP.	82pF	50V	J
	C1647	NCB21HK-472X	C CAP.	4700pF	50V	K
	C1648	NDC21HJ-180X	C CAP.	18pF	50V	J
	C1652-53	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1654	QETN1HM-107Z	E CAP.	100µF	50V	M
	C1655	QETN1HM-106Z	E CAP.	10µF	50V	M

⚠	Symbol No.	Part No.	Part Name	Description
CAPACITOR				
	C1656-57	NCF21HZ-224X	C CAP.	0.22µF 50V Z
	C1658	QETM1HM-228	E CAP.	2200µF 50V M
	C1661-62	NCF21HZ-224X	C CAP.	0.22µF 50V Z
	C1663-64	QETM1VM-108	E CAP.	1000µF 35V M
	C1667	QETN1CM-227Z	E CAP.	220µF 16V M
	C1676-77	NCB21HK-103X	C CAP.	0.01µF 50V K
	C1679	QETN1HM-474Z	E CAP.	0.47µF 50V M
	C1682	QETN1CM-227Z	E CAP.	220µF 16V M
	C1701	NDC21HJ-471X	C CAP.	470pF 50V J
	C1702	NCB21HK-682X	C CAP.	6800pF 50V K
	C1703	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1704	QETN1AM-227Z	E CAP.	220µF 10V M
	C1705-06	NDC21HJ-9R0X	C CAP.	9.0pF 50V J
	C1707	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1708	NCB21HK-333X	C CAP.	0.033µF 50V K
	C1709	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1710	QETN1EM-476Z	E CAP.	47µF 25V M
	C1711	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1714	QETN1HM-474Z	E CAP.	0.47µF 50V M
	C1715	QETN1EM-476Z	E CAP.	47µF 25V M
	C1717	QETN1HM-106Z	E CAP.	10µF 50V M
	C1718	NDC21HJ-471X	C CAP.	470pF 50V J
	C1719	NCF21CZ-105X	C CAP.	1µF 16V Z
	C1720	NCB21HK-102X	C CAP.	1000pF 50V K
	C1757	NCS21HJ-471X	C CAP.	470pF 50V J
	C1758	QETN1AM-227Z	E CAP.	220µF 10V M
	C1759	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1760-61	NDC21HJ-150X	C CAP.	15pF 50V J
	C1762	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1763	QETN1EM-476Z	E CAP.	47µF 25V M
	C1764	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1766-68	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1774	NDC21HJ-151X	C CAP.	150pF 50V J
	C1776-77	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1780	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1781	NDC21HJ-101X	C CAP.	100pF 50V J
	C1782	NCB21HK-102X	C CAP.	1000pF 50V K
	C1783	NDC21HJ-151X	C CAP.	150pF 50V J
	C1784	QETN1CM-227Z	E CAP.	220µF 16V M
	C1785	NCB21HK-102X	C CAP.	1000pF 50V K
	C1901	QETN1CM-107Z	E CAP.	100µF 16V M
	C1902	QETN1HM-106Z	E CAP.	10µF 50V M
TRANSFORMER				
	T1101	CE42697-001	LOWPASS FILTER	
	T1111	CE42697-001	LOWPASS FILTER	
	T1121	CE42697-001	LOWPASS FILTER	
COIL				
	L1001-02	QQL01BK-8R2Z	PEAKING COIL	8.2µH
	L1003	QQL01BK-221Z	PEAKING COIL	220µH
	L1004	QQL01BK-5R6Z	PEAKING COIL	5.6µH
	L1101	QRN143J-0R0X	C R	0.0Ω 1/4W J
	L1102-05	QQL03BJ-220Z	PEAKING COIL	22µH
	L1106	QQL03BJ-270Z	PEAKING COIL	27µH
	L1111	QQL03BJ-220Z	PEAKING COIL	22µH
	L1121	QQL03BJ-330Z	PEAKING COIL	33µH
	L1301	QQL01BK-330Z	PEAKING COIL	33µH
	L1302	NQL024J-5R6X	COIL	5.6µH
	L1601-02	QRN143J-0R0X	C R	0.0Ω 1/4W J
	L1603	QQL01BK-100Z	PEAKING COIL	10µH
	L1604	QQL01BJ-180Z	PEAKING COIL	18µH
	L1605	QQL01BJ-220Z	PEAKING COIL	22µH
	L1606-07	QQL01BK-5R6Z	PEAKING COIL	5.6µH
	L1701	QQL01BK-331Z	PEAKING COIL	330µH
	L1702	QQL01BK-3R9Z	PEAKING COIL	3.9µH
	L1752	QRN143J-0R0X	C R	0.0Ω 1/4W J
	L1753	QQL01BK-4R7Z	PEAKING COIL	4.7µH

⚠	Symbol No.	Part No.	Part Name	Description
DIODE				
	D1201-11	MA3130/H/-X	ZENER DIODE	
	D1214-15	MA3130/H/-X	ZENER DIODE	
	D1402	BYD33D-T3	SI.DIODE	
	D1403-04	MA3330/L/-X	ZENER DIODE	
	D1461	MA111-X	SI.DIODE	
	D1462	MA3220/M/-X	ZENER DIODE	
	D1502	MA111-X	SI.DIODE	
	D1504	MA111-X	SI.DIODE	
	D1601	MA3062/M/-X	ZENER DIODE	
	D1653-54	MA3330/L/-X	ZENER DIODE	
	D1657	MA111-X	SI.DIODE	
	D1658	MA153A-X	SI.DIODE	
	D1660	MA111-X	SI.DIODE	
	D1661	MA153A-X	SI.DIODE	
	D1664	MA111-X	SI.DIODE	
	D1669	MA152WK-X	SI.DIODE	
	D1670	MA111-X	SI.DIODE	
	D1701-02	MA111-X	SI.DIODE	
	D1704	1SS244-T2	SI.DIODE	
	D1708	MA111-X	SI.DIODE	
	D1709	MA3068/M/-X	ZENER DIODE	
	D1712	MA111-X	SI.DIODE	
	D1753	MA111-X	SI.DIODE	
	D1754	MA3062/M/-X	ZENER DIODE	
	D1771-76	MA3056/M/-X	ZENER DIODE	
	D1901	MA3130/H/-X	ZENER DIODE	
TRANSISTOR				
	Q1101-04	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1111	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1112	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1113-14	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1121	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1122	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1123-24	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1131-32	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1201-02	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1203	2SC1815/YG/-T	SI.TRANSISTOR	
	Q1204-05	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1206-07	DTC323TK-X	DIGI.TRANSISTOR	
	Q1208	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1209	2SA1015/YG/-T	SI.TRANSISTOR	
	Q1211	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1213-14	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1215-16	DTC323TK-X	DIGI.TRANSISTOR	
	Q1217	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1220-21	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1303-04	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1305	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1345	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1346	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1351	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1381-83	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1461-62	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1601	DTC323TK-X	DIGI.TRANSISTOR	
	Q1602	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1603	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1651	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1652-53	DTC323TK-X	DIGI.TRANSISTOR	
	Q1657	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1659-60	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1701-08	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1709	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1752	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1901	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1902	2SC2712/YG/-X	SI.TRANSISTOR	
IC				
	IC1101	TC9090AN	I.C.(DIGI-MOS)	
	IC1301	CXA1545AS	I.C.(MONO-ANA)	
	IC1303	TDA9143/N3	I.C.(MONO-ANA)	
	IC1304	TDA4665/V5	I.C.(MONO-ANA)	
	IC1305	LA7016	I.C.(MONO-ANA)	
	IC1401	LA7841	I.C.(MONO-ANA)	

⚠	Symbol No.	Part No.	Part Name	Description
	IC			
	IC1551	LA6515	I.C.(MONO-ANA)	
	IC1601	MSP3410DPPC5-8C	I C	
	IC1602	BA4558F-X	I.C.(MONO-ANA)	
	IC1651	TA8246AH	I.C.(HYBRID)	
	IC1701	M37280MK-105SP	I.C.(MICRO-COMP)	
	IC1702	L78LR05E-MA	I.C.	
	IC1703	AT24C16-32WFX1	I.C.	(SERVICE)
	IC1754	SDA5275S	I.C.(MICRO-PROC)	
	IC1755	MSM514400D-60ZS	I.C.(D-RAM)	
	OTHERS			
	CN1002	QGF1220C2-25	FFC/FPC CONNECTO	
	J1651	QNN0296-001	PIN JACK	
	K1001	QRN143J-0R0X	C R	0.0Ω 1/4W J
	K1009	QRN143J-0R0X	C R	0.0Ω 1/4W J
	K1101	QQR0621-002Z	BEADS CORE	
	K1401	QQR0621-002Z	BEADS CORE	
	K1701	QQR0621-002Z	BEADS CORE	
	LC1101	TA78L005AP-T	I.C.(H)	
	LC1601	CE42142-103Z	EMI FILTER	
	TU1001	CEEK481-A04	TUNER	
	W1001-02	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	X1311	CE40749-001Z	CRYSTAL	
	X1312	CE40668-001Z	CRYSTAL	
	X1601	CE42546-001Z	CRYSTAL	
	X1701	CST8.00MTW	CER.RESONATOR	
	X1752	QAX0351-001Z	CRYSTAL	
	Y1301-06	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1312-13	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1315	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1328	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1401	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1502-05	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1653	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1657-58	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1661-62	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1701-03	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1750-53	NRSA02J-0R0X	MG R	0.0Ω 1/10W J

POWER & DEF PW BOARD ASS'Y (SMD-2006A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R2451	QRE141J-272Y	C R	2.7kΩ 1/4W J
	R2455	QRE141J-102Y	C R	1kΩ 1/4W J
	R2456	QRE141J-473Y	C R	47kΩ 1/4W J
	R2457	QRE141J-103Y	C R	10kΩ 1/4W J
	R2458	QRA14CF-1002Y	MF R	10kΩ 1/4W F
	R2459	QRE141J-391Y	C R	390Ω 1/4W J
	R2461	QRE141J-102Y	C R	1kΩ 1/4W J
	R2463	QRG029J-820	OM R	82 Ω 2W J
	R2464	QRX01GJ-2R2	MF R	2.2Ω 1W J
	R2465	QRE141J-103Y	C R	10kΩ 1/4W J
	R2468	QRE141J-473Y	C R	47kΩ 1/4W J
	R2470	QRE141J-103Y	C R	10kΩ 1/4W J
	R2501	QRE141J-471Y	C R	470Ω 1/4W J
	R2502	QRE141J-123Y	C R	12kΩ 1/4W J
	R2503	QRE121J-152Y	C R	1.5kΩ 1/2W J
	R2504	QRG039J-272	OM R	2.7kΩ 3W J
	R2505	QRG039J-332	OM R	3.3kΩ 3W J
	R2506	QRE121J-5R6Y	C R	5.6Ω 1/2W J
	R2507	QRC121K-152Z	COMP.R	1.5kΩ 1/2W K
	R2509	QRE141J-563Y	C R	56kΩ 1/4W J
	R2510	QRE141J-333Y	C R	33kΩ 1/4W J
	R2511	QRE141J-102Y	C R	1kΩ 1/4W J
	R2522	QRE121J-471Y	C R	470Ω 1/2W J
⚠	R2551	QRZ9017-4R7	F R	4.7Ω 1/4W J
⚠	R2552	QRZ9021-1R0	FUSI.RESISTOR	1 Ω 1W J
⚠	R2553	QRZ9021-1R0	FUSI.RESISTOR	1 Ω 1W J
	R2554-55	QRE141J-392Y	C R	3.9kΩ 1/4W J
	R2557	QRE121J-272Y	C R	2.7kΩ 1/2W J
	R2561	QRZ0056-103Z	COMP.R	10kΩ 1/2W K
	R2574	QRG029J-220	OM R	22 Ω 2W J
	R2575	QRE121J-123Y	C R	12kΩ 1/2W J
	R2581	QRF154K-4R7	UNF R	4.7Ω 15W K
	R2582	QRE141J-681Y	C R	680Ω 1/4W J
	R2583	QRE121J-682Y	C R	6.8kΩ 1/2W J
	R2584	QRE141J-183Y	C R	18kΩ 1/4W J
	R2585	QRE141J-222Y	C R	2.2kΩ 1/4W J
	R2586	QRA14CF-7501Y	MF R	7.5kΩ 1/4W F
	R2587	QRA14CF-2201Y	MF R	2.2kΩ 1/4W F
	R2588	QRE141J-103Y	C R	10kΩ 1/4W J
	R2901	QRF104K-3R9	UNF R	3.9Ω 10W K
	R2902	QRE121J-331Y	C R	330Ω 1/2W J
	R2903-04	QRE121J-474Y	C R	470kΩ 1/2W J
	R2905	QRL039J-823	OM R	82kΩ 3W J
	R2906	QRG039J-683	OM R	68kΩ 3W J
⚠	R2907	QRZ9017-4R7	F R	4.7Ω 1/4W J
	R2908	QRE121J-152Y	C R	1.5kΩ 1/2W J
	R2909	QRT029J-R39	MF R	0.39Ω 2W J
	R2910	QRM059J-R22	MP R	0.22 Ω 5W J
	R2911	QRE121J-681Y	C R	680Ω 1/2W J
	R2912	QRE121J-332Y	C R	3.3kΩ 1/2W J
	R2913	QRL039J-823	OM R	82kΩ 3W J
	R2923	QRE121J-102Y	C R	1kΩ 1/2W J
	R2951	QRF074J-102	UNF R	1kΩ 7W J
	R2952	QRG029J-103	OM R	10kΩ 2W J
	R2953	QRG029J-183	OM R	18kΩ 2W J
	R2954	QRE141J-330Y	C R	33Ω 1/4W J
	R2955	QRE141J-681Y	C R	680Ω 1/4W J
	R2956	QRX029J-R47	MF R	0.47 Ω 2W J
	R2957	QRG029J-100	OM R	10 Ω 2W J
	R2960	QRE141J-153Y	C R	15kΩ 1/4W J
	R2961	QRE141J-182Y	C R	1.8kΩ 1/4W J
	R2962	QRE141J-153Y	C R	15kΩ 1/4W J
	R2963	QRE141J-682Y	C R	6.8kΩ 1/4W J
	R2968	QRE141J-103Y	C R	10kΩ 1/4W J
	R2969	QRE141J-682Y	C R	6.8kΩ 1/4W J
	R2970	QRE141J-822Y	C R	8.2kΩ 1/4W J
	R2971	QRE141J-682Y	C R	6.8kΩ 1/4W J
	R2983	QRE141J-122Y	C R	1.2kΩ 1/4W J
	R2984	QRE141J-104Y	C R	100kΩ 1/4W J
	R2985-86	QRE141J-103Y	C R	10kΩ 1/4W J
	R2987	QRE121J-680Y	C R	68Ω 1/2W J
⚠	R2991	QRZ0057-825	C R	8.2MΩ 1W J
	CAPACITOR			
	C2451	QCS31HJ-470Z	C CAP.	47pF 50V J
	C2452	QFV71HJ-104Z	MF CAP.	0.1µF 50V J
	C2453	QETN1EM-476Z	E CAP.	47µF 25V M
	C2454	QETN1HM-106Z	E CAP.	10µF 50V M
	C2455	QFLC1HJ-102Z	M CAP.	1000pF 50V J
	C2456	QFM72DJ-122Z	M CAP.	1200pF 200V J
	C2457	QFM72DJ-152Z	M CAP.	1500pF 200V J
	C2458	QEZ0472-106Z	E CAP.	10µF 250V M
	C2459	QCZ012Q-104Z	C CAP.	0.1µF 25V Z
	C2460	QFP31HJ-272Z	PP CAP.	2700pF 50V J
	C2461	QFLC1HJ-182Z	M CAP.	1800pF 50V J
	C2501	QCB32HK-331Z	C CAP.	330pF 500V K

⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C2502	QFM72DK-103	M CAP.	0.01µF 200V K
	C2503	QFV71HJ-224Z	MF CAP.	0.22µF 50V J
⚠	C2521	QFZ0122-112	MPP CAP.	1100pF1.8kVH ±3%
⚠	C2522	QFZ0200-123	MPP CAP.	0.012µF1.5kVH ±3%
	C2523	QFM72DK-393	M CAP.	0.039µF 200V K
⚠	C2524	QFP32JJ-223	PP CAP.	0.022µF 630V J
	C2525	QFZ0194-914	MPP CAP.	0.91µF 250V J
	C2526	QFZ0199-104	MPP CAP.	0.1µF 250V J
	C2527	QFZ0194-154	MPP CAP.	0.15µF 250V J
	C2528	QFZ0199-104	MPP CAP.	0.1µF 250V J
	C2529	QCB32HK-561Z	C CAP.	560pF 500V K
	C2530	QFZ0194-154	MPP CAP.	0.15µF 250V J
	C2532	QETM2CM-227	E CAP.	220µF 160V M
	C2551	QCB32HK-152Z	C CAP.	1500pF 500V K
	C2552	QETN1CM-108Z	E CAP.	1000µF 16V M
	C2553	QCB32HK-152Z	C CAP.	1500pF 500V K
	C2554	QETN1CM-108Z	E CAP.	1000µF 16V M
	C2555	QENC1HM-225Z	BP E CAP.	2.2µF 50V M
	C2556	QCB32HK-102Z	C CAP.	1000pF 500V K
	C2557	QETN2EM-106Z	E CAP.	10µF 250V M
	C2565	QFLC2AK-223Z	M CAP.	0.022µF 100V K
	C2581	QETN1CM-107Z	E CAP.	100µF 16V M
	C2582	QETN1EM-476Z	E CAP.	47µF 25V M
	C2583	QETN2AM-106Z	E CAP.	10µF 100V M
	C2584	QETN1AM-227Z	E CAP.	220µF 10V M
	C2585	QFZ0194-534	MPP CAP.	0.53µF 250V J
⚠	C2901	QFZ9040-473	MF CAP.	0.047µFAC275V M
⚠	C2902	QCZ9054-472	C CAP.	4700pFAC250V Z
⚠	C2903	QCZ9054-472	C CAP.	4700pFAC250V Z
⚠	C2904	QCZ9054-472	C CAP.	4700pFAC250V Z
	C2905	QEZ0199-227	E CAP.	220µF 400V M
	C2906	QCB32HK-103	C CAP.	0.01µF 500V K
	C2907	QCZ0122-391	C CAP.	390pF 2kV K
	C2908	QETN1HM-476Z	E CAP.	47µF 50V M
	C2909	QCB31HK-182Z	C CAP.	1800pF 50V K
	C2910	QCZ0122-561	C CAP.	560pF 2kV K
	C2912	QCB31HK-561Z	C CAP.	560pF 50V K
	C2921	QETN1EM-227Z	E CAP.	220µF 25V M
	C2922-23	QETN1HM-106Z	E CAP.	10µF 50V M
	C2951	QEZ0203-227	E CAP.	220µF 160V M
	C2952	QEHQ1CM-228	E CAP.	2200µF 16V M
	C2953-54	QEHQ1CM-228	E CAP.	2200µF 16V M
	C2955	QEHR1CM-477Z	E CAP.	470µF 16V M
	C2956	QEHQ1VM-228	E CAP.	2200µF 35V M
	C2959-60	QCB32HK-102Z	C CAP.	1000pF 500V K
	C2966	QFLC1HJ-103Z	M CAP.	0.01µF 50V J
	C2967	QEHQ1CM-228	E CAP.	2200µF 16V M
	C2968	QCZ0120-104Z	C CAP.	0.1µF 25V Z
	C2970	QEHR1CM-227Z	E CAP.	220µF 16V M
	C2972-73	QEHR1AM-477Z	E CAP.	470µF 10V M
	C2974-75	QEZ0256-128	E CAP.	1200µF 10V M
	C2976	QETN1AM-227Z	E CAP.	220µF 10V M
	C2977	QFV71HJ-684Z	MF CAP.	0.68µF 50V J
	C2978	QCZ0122-471	C CAP.	470pF 2kV K
⚠	C2991	QCZ9079-332	C CAP.	3300pFAC250V K
⚠	C2992	QCZ9079-471	C CAP.	470pFAC250V K
	TRANSFORMER			
	T2501	QQR1111-001	DRIVE TRANSF.	
	T2521	QQR0706-001	PINC.TRANSF.	
⚠	T2551	QQH0054-002-I2	HVT	(SERVICE)
	T2561	QQR1096-001	DEF TRANSF.	
⚠	T2901	CETS129-001J4	SW TRANSF.	
⚠	T2921	QQT0147-001	POWER TRANSF.	
	COIL			
	L2451	QQL43AJ-332	CHOKE COIL	
	L2452	QQLZ020-801	CHOKE COIL	
	L2521	QQLZ025-180	CHOKE COIL	
	L2522	QQR0961-002	LINEARITY COIL	
	L2551	QQLZ026-540	HEATER CHOKE	

⚠	Symbol No.	Part No.	Part Name	Description
	COIL			
	L2561	QQL43AJ-222	CHOKE COIL	2200µH
	L2901-02	QQL401K-100Z	CHOKE COIL	
⚠	L2903	QQR0646-003	CHOKE COIL	
	L2951	QQLZ026-460	HEATER CHOKE	
	L2952-54	QQL26AK-220Z	CHOKE COIL	
	L2955	QQR0518-001	CHOKE COIL	
	L2956	QQLZ026-460	HEATER CHOKE	
	L2957	QQL26AK-220Z	CHOKE COIL	
	DIODE			
	D2451	1SS133-T2	SI.DIODE	
	D2454	BYD33D-T3	SI.DIODE	
	D2501	1SS81-T5	SI.DIODE	
	D2502	1SS133-T2	SI.DIODE	
	D2503	MTZJ15B-T2	ZENER DIODE	
	D2521	V11CA-C1	SI.DIODE	
	D2522	FMV-3FU-F1	SI.DIODE	
	D2551-52	BYW95B-20	SI.DIODE	
	D2553	BYD33G-T3	SI.DIODE	
	D2554	MTZJ4.7A-T2	ZENER DIODE	
	D2555-56	BYD33G-T3	SI.DIODE	
	D2581	MTZJ15B-T2	ZENER DIODE	
	D2582	MTZJ7.5B-T2	ZENER DIODE	
	D2583	MTZJ7.5S-T2	ZENER DIODE	
	D2584	BYD33G-T3	SI.DIODE	
⚠	D2901	D3SB60	BRIDGE DIODE	
	D2902	BYD33M-T3	SI.DIODE	
⚠	D2903	BYD33D-T3	SI.DIODE	
	D2904	BYD33D-T3	SI.DIODE	
	D2905	1SS133-T2	SI.DIODE	
	D2907	MTZJ15B-T2	ZENER DIODE	
	D2921-24	1N4003-T2	SI.DIODE	
	D2925	MTZJ10B-T2	ZENER DIODE	
	D2951	RU4B-F1	SI.DIODE	
	D2953	FMX-G12S	SI.DIODE	
	D2954	BYW95B-20	SI.DIODE	
	D2955	SF6L20U	SI.DIODE	
	D2958	BYD33M-T3	SI.DIODE	
	D2959	RK44-LFT4	SI.DIODE	
	D2960	MTZJ33B-T2	ZENER DIODE	
	D2961-62	1SS133-T2	SI.DIODE	
	D2964-66	1SS133-T2	SI.DIODE	
	D2981-82	1SS133-T2	SI.DIODE	
	TRANSISTOR			
	Q2452	2SK2459N-F54	F.E.T.	
	Q2453	2SC1815/YG/-T	SI.TRANSISTOR	
	Q2501	BSN304-T	F.E.T.	
	Q2502	2SC1815/YG/-T	SI.TRANSISTOR	
⚠	Q2521	2SC5552-RL	SI.TRANSISTOR	H.OUT
	Q2581	2SA949/Y/Z1-T	SI.TRANSISTOR	
	Q2582	DTC144ESA-T	DIGI.TRANSISTOR	
	Q2583	2SC1815/YG/-T	SI.TRANSISTOR	
	Q2921	2SC2655/Y/-T	SI.TRANSISTOR	
	Q2981-82	2SC1815/YG/-T	SI.TRANSISTOR	
	IC			
	IC2451	BA10393	IC	
	IC2901	STR-F6668B	I C	
	IC2951	SE140N	I.C.(HYBRID)	
	IC2952	BA12T	I.C.(MONO-ANA)	
	IC2953	SI-8050S	I.C.(HYBRID)	
	IC2954	BA033T	I.C.(MONO-ANA)	
	IC2955	UPC2409AHF	I.C.(MONO-ANA)	
	IC2956	BA08T	I C	
	OTHERS			
⚠	CP2953	ICP-N75-Y	I.C.PROTECT	
	K2521	CE41832-001	LEAD CORE	

⚠	Symbol No.	Part No.	Part Name	Description
	OTHERS			
	K2523-25	CE41832-001	LEAD CORE	
	K2901-02	CE42050-001Z	CORE	
	K2951	QQR0679-001	FERRITE BEADS	
	K2952	QQR0621-002Z	BEADS CORE	
	K2953	QQR0716-001Z	LEAD CORE	
⚠	PC2901	TLP721F(D4-GR)	I.C.(PH.COUPLER)	
⚠	RY2981	QSK0086-001	RELAY	
⚠	TH2901	QAD0120-9R0	P THERMISTOR	

CRT SOCKET PW BOARD ASS'Y (SMD-3006A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R3101	QRE141J-272Y	C R	2.7kΩ 1/4W J
	R3102	QRE141J-153Y	C R	15kΩ 1/4W J
	R3103	QRE141J-152Y	C R	1.5kΩ 1/4W J
	R3104	QRE141J-680Y	C R	68Ω 1/4W J
	R3105	QRE141J-221Y	C R	220Ω 1/4W J
	R3107-08	QRE141J-470Y	C R	47Ω 1/4W J
⚠	R3109	QRZ9021-561	F R	560Ω 1W J
	R3110	QRE141J-122Y	C R	1.2kΩ 1/4W J
	R3111	QRE141J-390Y	C R	39Ω 1/4W J
	R3112	QRE141J-2R7Y	C R	2.7Ω 1/4W J
	R3113-14	QRE141J-563Y	C R	56kΩ 1/4W J
	R3115	QRE141J-122Y	C R	1.2kΩ 1/4W J
	R3116	QRE141J-2R7Y	C R	2.7Ω 1/4W J
	R3117	QRE141J-390Y	C R	39Ω 1/4W J
	R3118	QRE141J-121Y	C R	120Ω 1/4W J
	R3119	QRL029J-391	OM R	390Ω 2W J
	R3130	QRE141J-101Y	C R	100Ω 1/4W J
	R3131	QRG01GJ-101	OM R	100Ω 1W J
	R3204-06	QRE141J-152Y	C R	1.5kΩ 1/4W J
	R3207	QRE141J-562Y	C R	5.6kΩ 1/4W J
	R3208	QRE141J-123Y	C R	12kΩ 1/4W J
	R3211	QRE141J-334Y	C R	330kΩ 1/4W J
	R3223-25	QRE141J-182Y	C R	1.8kΩ 1/4W J
	R3227	QRE141J-272Y	C R	2.7kΩ 1/4W J
	R3228	QRE141J-822Y	C R	8.2kΩ 1/4W J
	R3229-31	QRG01GJ-823	OM R	82kΩ 1W J
	R3232-34	QRE141J-332Y	C R	3.3kΩ 1/4W J
	R3235-37	QRC121K-152Z	COMP.R	1.5kΩ 1/2W K
	R3239	QRZ0107-474Z	C R	470kΩ 1/2W K
	R3241	QRZ0107-105Z	C R	1MΩ 1/2W K
	R3301-02	QRE121J-474Y	C R	470kΩ 1/2W J
	R3303-04	QRE141J-223Y	C R	22kΩ 1/4W J
	R3305	QRE141J-562Y	C R	5.6kΩ 1/4W J
	R3306	QRE141J-392Y	C R	3.9kΩ 1/4W J
	R3307	QRE141J-101Y	C R	100Ω 1/4W J
	R3308	QRE141J-471Y	C R	470Ω 1/4W J
	R3309	QRE141J-120Y	C R	12Ω 1/4W J
	R3310	QRE141J-331Y	C R	330Ω 1/4W J
	R3311-12	QRE141J-472Y	C R	4.7kΩ 1/4W J
	R3313	QRE141J-102Y	C R	1kΩ 1/4W J
	R3315	QRE121J-105Y	C R	1MΩ 1/2W J
	CAPACITOR			
	C3101	QETN1HM-106Z	E CAP.	10µF 50V M
	C3103	QETN1HM-335Z	E CAP.	3.3µF 50V M
	C3104	QETN1CM-107Z	E CAP.	100µF 16V M

⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C3107	QETN2CM-106Z	E CAP.	10µF 160V M
	C3108-09	QCB32HK-472Z	C CAP.	4700pF 500V K
	C3110	QETN2CM-106Z	E CAP.	10µF 160V M
	C3111-12	QETN1AM-107Z	E CAP.	100µF 10V M
	C3113	QETN1AM-337Z	E CAP.	330µF 10V M
	C3118	QENC1HM-106Z	BP E CAP.	10µF 50V M
	C3201-03	QCS31HJ-8R0Z	C CAP.	8.0pF 50V J
	C3204	QCZ0120-104Z	C CAP.	0.1µF 25V Z
	C3205	QCZ0120-104Z	C CAP.	0.1µF 25V Z
	C3206	QCZ0120-104Z	C CAP.	0.1µF 25V Z
	C3207-09	QETN1EM-476Z	E CAP.	47µF 25V M
	C3210-12	QFK62EK-104Z	MM CAP.	0.1µF 250V K
	C3213-15	QCS31HJ-181Z	C CAP.	180pF 50V J
	C3216	QETN1CM-107Z	E CAP.	100µF 16V M
	C3218	QETM2EM-336	E CAP.	33µF 250V M
	C3219	QFZ0097-223	M M CAP.	0.022µF 1250V K
	C3221	QETN2EM-106Z	E CAP.	10µF 250V M
	C3301	QETN1CM-107Z	E CAP.	100µF 16V M
	C3302	QFLC1HJ-103Z	M CAP.	0.01µF 50V J
	COIL			
	L3201-03	QQL244K-4R7Z	PEAKING COIL	4.7µH
	L3301	QQL26AJ-102Z	PEAKING COIL	1000µH
	DIODE			
	D3101-02	RH1S-T3	SI.DIODE	
	D3151	1SS133-T2	SI.DIODE	
	D3204-06	EU01N-T2	SI.DIODE	
	D3208-10	1SR124-400A-T2	SI.DIODE	
	D3301-03	1SS133-T2	SI.DIODE	
	TRANSISTOR			
	Q3102	2SC3311A/QR/-T	SI.TRANSISTOR	
	Q3103	2SC1627A/OY/-T	SI.TRANSISTOR	
	Q3105	2SA1837	SI.TRANSISTOR	
	Q3106	2SC4793	SI.TRANSISTOR	
	Q3301	2SA1015/YG/-T	SI.TRANSISTOR	
	Q3302	2SC2655/Y/-T	SI.TRANSISTOR	
	Q3303	2SA1015/YG/-T	SI.TRANSISTOR	
	Q3304-05	2SC3311A/QR/-T	SI.TRANSISTOR	
	IC			
	IC3201-03	TDA6111Q	I.C.(MONO-ANA)	
	OTHERS			
	K3101	CE41492-001Z	CHOKE COIL	
	K3103-04	CE41492-001Z	CHOKE COIL	
	K3105	QQR0621-002Z	BEADS CORE	
⚠	SK3001	CE42670-001	C.R.T.SOCKET	

FRONT CNOTROL PW BOARD ASS'Y (SMD-8007A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R8003	QRE141J-222Y	C R	2.2kΩ 1/4W J
	R8004	QRE141J-472Y	C R	4.7kΩ 1/4W J
	R8005	QRE141J-561Y	C R	560Ω 1/4W J
	R8008	QRE141J-682Y	C R	6.8kΩ 1/4W J
	R8020	QRE141J-562Y	C R	5.6kΩ 1/4W J
	R8039	QRE141J-821Y	C R	820Ω 1/4W J
	CAPACITOR			
	C8003	QETN1HM-106Z	E CAP.	10µF 50V M
	C8004	QCZ0120-104Z	C CAP.	
	C8005	QETN1EM-476Z	E CAP.	47µF 25V M
	C8022	QETN1EM-476Z	E CAP.	47µF 25V M
⚠	C8901	QFZ9040-474	MF CAP.	0.47µFAC275V M
	DIODE			
	D8007	P1241-04	C.D.S.	
	D8008	1SS133-T2	SI.DIODE	
	D8010	SPR-39MVWF	L.E.D.	
	D8011	1SS133-T2	SI.DIODE	
	D8014	MTZJ6.8A-T2	ZENER DIODE	
	TRANSISTOR			
	Q8001	2SA1015/YG/-T	SI.TRANSISTOR	
	Q8002	DTC144ESA-T	DIGI.TRANSISTOR	
	Q8003-04	DTA144ESA-T	DIGI.TRANSISTOR	
	IC			
	IC8001	GP1U281Q	IFR DETECT UNIT	
	OTHERS			
		CM35921-005-H	CDS HOLDER	
		LC30349-001A-H	L.E.D.HOLDER	
	CN8002	QGF1220C2-25	FFC/FPC CONNECTO	
⚠	F8901	QMF51D2-3R15J1	FUSE	3.15A
⚠	LF8901	QQR1095-001	LINE FILTER	
⚠	LF8902	QQR1095-001	LINE FILTER	
⚠	S8901	QSW0824-001	PUSH SWITCH	MAIN POWER

SIDE CONTROL JACK PW BOARD ASS'Y (SMD-8107A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R8001-02	QRE121J-271Y	C R	270Ω 1/2W J
	R8009	QRE141J-105Y	C R	1MΩ 1/4W J
	R8010	QRE141J-183Y	C R	18kΩ 1/4W J
	R8011	QRE141J-123Y	C R	12kΩ 1/4W J
	R8012	QRE141J-273Y	C R	27kΩ 1/4W J
	R8013	QRE141J-332Y	C R	3.3kΩ 1/4W J
	R8014	QRE141J-123Y	C R	12kΩ 1/4W J
	R8021-22	QRE141J-102Y	C R	1kΩ 1/4W J
	CAPACITOR			
	C8001-02	QFLC1HJ-103Z	M CAP.	0.01µF 50V J
	C8010-11	QFLC1HJ-472Z	M CAP.	4700pF 50V J
	C8021	QCZ0120-104Z	C CAP.	0.1µF 25V Z
	COIL			
	L8001	QQR0716-001Z	LEAD CORE	
	L8002-03	QQL211K-5R6Y	PEAKING COIL	5.6µH
	L8010-11	QQL211K-270Y	PEAKING COIL	27µH
	L8012	QQR0716-001Z	LEAD CORE	
	OTHERS			
	J8001	QNS0169-001	3.5 JACK	
	J8003	QNZ0438-001	JACK	
	S8001	QSW0619-003Z	PUSH SWITCH	MENU
	S8002	QSW0619-003Z	PUSH SWITCH	CH DOWN
	S8003	QSW0619-003Z	PUSH SWITCH	CH UP

BBE PW BOARD ASS'Y (SMD0A001A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R0101-02	QRE141J-223Y	C R	22kΩ 1/4W J
	R0106-07	QRE141J-223Y	C R	22kΩ 1/4W J
	R0108	QRE141J-103Y	C R	10kΩ 1/4W J
	R0113	QRE141J-103Y	C R	10kΩ 1/4W J
	R0115	QRE141J-103Y	C R	10kΩ 1/4W J
	R0116	QRE141J-273Y	C R	27kΩ 1/4W J
	R0117	QRE141J-822Y	C R	8.2kΩ 1/4W J
	R0118	QRE141J-273Y	C R	27kΩ 1/4W J
	R0119	QRE141J-822Y	C R	8.2kΩ 1/4W J
	CAPACITOR			
	C0101	QFLC1HJ-332Z	M CAP.	3300pF 50V J
	C0102	QFLC1HJ-333Z	M CAP.	0.033µF 50V J
	C0103	QENC1HM-475Z	BP E CAP.	4.7µF 50V M
	C0104	QETN1HM-106Z	E CAP.	10µF 50V M
	C0105	QETN1EM-476Z	E CAP.	47µF 25V M
	C0107	QFV71HJ-104Z	MF CAP.	0.1µF 50V J
	C0108	QFLC1HJ-332Z	M CAP.	3300pF 50V J
	C0109	QFLC1HJ-333Z	M CAP.	0.033µF 50V J
	C0110	QENC1HM-475Z	BP E CAP.	4.7µF 50V M
	C0112	QETN1HM-476Z	E CAP.	47µF 50V M
	C0114-15	QETN1HM-106Z	E CAP.	10µF 50V M
	IC			
	IC0101	NJM2150AD	I.C.(MONO-ANA)	
	OTHERS			
	CN0001	QGB3501K1-40	PLUG	

IF PW BOARD ASS'Y (SMD0F003A-U2)

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	R0020	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0021	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0022	NRSA02J-331X	MG R	330Ω 1/10W J
	R0023	NRSA02J-680X	MG R	68Ω 1/10W J
	R0024	NRSA02J-330X	MG R	33Ω 1/10W J
	R0025	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R0026	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0030-31	NRSA02J-150X	MG R	15Ω 1/10W J
	R0050-51	NRSA02J-121X	MG R	120Ω 1/10W J
	R0052-53	NRSA02J-561X	MG R	560Ω 1/10W J
	R0057	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0058	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R0059	NRSA02J-273X	MG R	27kΩ 1/10W J
	R0060-61	NRSA02J-471X	MG R	470Ω 1/10W J
	R0062	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0063	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R0064	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0065	NRSA02J-470X	MG R	47Ω 1/10W J
	R0070-71	NRSA02J-393X	MG R	39kΩ 1/10W J
	R0080-81	NRSA02J-473X	MG R	47kΩ 1/10W J
	R0082	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R0101	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R0102	NRSA02J-471X	MG R	470Ω 1/10W J
	R0103	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0104	NRSA02J-121X	MG R	120Ω 1/10W J
	R0105	NRSA02J-151X	MG R	150Ω 1/10W J
	R0106	NRSA02J-181X	MG R	180Ω 1/10W J
	R0107	NRSA02J-221X	MG R	220Ω 1/10W J
	R0108	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0109	NRSA02J-181X	MG R	180Ω 1/10W J
	R0111-12	NRSA02J-151X	MG R	150Ω 1/10W J
	R0113	NRSA02J-391X	MG R	390Ω 1/10W J
	R0114	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0116	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0117	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R0120	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0122-24	NRSA02J-103X	MG R	10kΩ 1/10W J
	R0140	NRSA02J-474X	MG R	470kΩ 1/10W J
	R0141	NRSA02J-101X	MG R	100Ω 1/10W J
	R0142	NRSA02J-391X	MG R	390Ω 1/10W J
	R0143	NRSA02J-750X	MG R	75Ω 1/10W J
	R0144	NRSA02J-474X	MG R	470kΩ 1/10W J
	R0145	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R0146	NRSA02J-104X	MG R	100kΩ 1/10W J
	R0601	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R0602	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0603	NRSA02J-104X	MG R	100kΩ 1/10W J
	R0604	NRSA02J-683X	MG R	68kΩ 1/10W J
	R0605-06	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R0607-08	NRSA02J-562X	MG R	5.6kΩ 1/10W J
⚠	R0609	QRZ9017-470	F R	47Ω 1/4W J

CAPACITOR

Symbol No.	Part No.	Part Name	Description
C0020-25	NCB21HK-472X	C CAP.	4700pF 50V K
C0026	NCB21HK-472X	C CAP.	4700pF 50V K
C0031-32	NCB21HK-472X	C CAP.	4700pF 50V K
C0040	NCB21HK-682X	C CAP.	6800pF 50V K
C0041	QETN1CM-107Z	E CAP.	100µF 16V M
C0042	NCB21HK-103X	C CAP.	0.01µF 50V K
C0043	QETN1CM-107Z	E CAP.	100µF 16V M
C0044	NCB21HK-103X	C CAP.	0.01µF 50V K
C0046	NCB21HK-103X	C CAP.	0.01µF 50V K
C0047	QETN1CM-227Z	E CAP.	220µF 16V M
C0050	QETN1HM-105Z	E CAP.	1µF 50V M
C0051	NCB21HK-472X	C CAP.	4700pF 50V K
C0053	NDC21HJ-6R0X	C CAP.	6.0pF 50V J
C0054	NCB21HK-103X	C CAP.	0.01µF 50V K
C0055	QETN1CM-107Z	E CAP.	100µF 16V M
C0056	QETN1HM-474Z	E CAP.	0.47µF 50V M

⚠	Symbol No.	Part No.	Part Name	Description

CAPACITOR

Symbol No.	Part No.	Part Name	Description
C0057	NDC21HJ-102X	C CAP.	1000pF 50V J
C0058	NCB21HK-472X	C CAP.	4700pF 50V K
C0060	NDC21HJ-120X	C CAP.	12pF 50V J
C0061	NDC21HJ-7R0X	C CAP.	7.0pF 50V J
C0062	QETN1HM-474Z	E CAP.	0.47µF 50V M
C0063	NCB21HK-103X	C CAP.	0.01µF 50V K
C0064	NCB21HK-472X	C CAP.	4700pF 50V K
C0065	QETN1HM-105Z	E CAP.	1µF 50V M
C0067	NDC21HJ-120X	C CAP.	12pF 50V J
C0069-70	NCB21HK-103X	C CAP.	0.01µF 50V K
C0071	QETN1HM-336Z	E CAP.	33µF 50V M
C0080-81	NCB21HK-472X	C CAP.	4700pF 50V K
C0101	QETN1CM-476Z	E CAP.	47µF 16V M
C0102	NDC21HJ-221X	C CAP.	220pF 50V J
C0103-04	NDC21HJ-121X	C CAP.	120pF 50V J
C0105	NCB21HK-103X	C CAP.	0.01µF 50V K
C0140	QETN1HM-335Z	E CAP.	3.3µF 50V M
C0141	NDC21HJ-561X	C CAP.	560pF 50V J
C0142	QETN1HM-105Z	E CAP.	1µF 50V M
C0143	QFLC1HJ-683Z	M CAP.	0.068µF 50V J
C0144	QETN1HM-335Z	E CAP.	3.3µF 50V M
C0145	NCB21HK-222X	C CAP.	2200pF 50V K
C0601	QFLC1HJ-183Z	M CAP.	0.018µF 50V J
C0602	QETN1CM-476Z	E CAP.	47µF 16V M
C0603	QETN1HM-106Z	E CAP.	10µF 50V M
C0604	QETN1HM-105Z	E CAP.	1µF 50V M
C0605	QETN1CM-477Z	E CAP.	470µF 16V M
C0606	NCB21HK-103X	C CAP.	0.01µF 50V K

TRANSFORMER

Symbol No.	Part No.	Part Name
T0020	QQR0626-001	I.F.TRANSF.
T0050	CELT001-307	C.WAVE TRANSF.
T0051	CELT001-306	C.WAVE TRANSF.

COIL

Symbol No.	Part No.	Part Name	Description
L0020	QQLZ014-R47	PEAKING COIL	0.47µH
L0021	NQL011K-1R5X	COIL	1.5µH
L0040	NQL024J-120X	COIL	12µH
L0042	NQL024J-330X	COIL	33µH
L0050-53	NQL011K-8R2X	COIL	8.2µH
L0054	NQL024J-330X	COIL	33µH
L0070	NQL011K-5R6X	COIL	5.6µH
L0101	NQL011K-6R8X	COIL	6.8µH
L0102-03	NQL011K-100X	COIL	10µH
L0104	NQL011K-8R2X	COIL	8.2µH

DIODE

Symbol No.	Part No.	Part Name
D0021	DAN235K-X	CHIP DIODE
D0050-51	DAN235K-X	CHIP DIODE

TRANSISTOR

Symbol No.	Part No.	Part Name
Q0012	2SC5083/L-P/-T	SI.TRANSISTOR
Q0080	2SC2712/YG/-X	SI.TRANSISTOR
Q0101	2SC2712/YG/-X	SI.TRANSISTOR
Q0102	2SA1162/YG/-X	SI.TRANSISTOR
Q0103	DTC144EKA-X	DIGI.TRANSISTOR
Q0104	2SC2712/YG/-X	SI.TRANSISTOR
Q0106	2SC2712/YG/-X	SI.TRANSISTOR
Q0107	2SA1162/YG/-X	SI.TRANSISTOR
Q0108	DTC144EKA-X	DIGI.TRANSISTOR
Q0109-11	2SC2712/YG/-X	SI.TRANSISTOR
Q0120	DTC124EKA-X	DIGI.TRANSISTOR
Q0122-26	DTC144EKA-X	DIGI.TRANSISTOR
Q0601-02	2SC2712/YG/-X	SI.TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	IC			
	IC0010	TA8865BN	I.C.(MONO-ANA)	
	OTHERS			
	CF0010-11	QAX0619-001	C TRAP	
	CF0100	TPS5.5MW	CERAMIC FILTER	
	CF0140	CSB503F30-T2	CER.RESONATOR	
	SF0010	QAX0531-001	SAW FILTER	
	SF0011	QAX0621-001	SAW FILTER	
	TC0052	QAT7004-100	TRIM.CAP.	10pF 100V
	TC0059	QAT7004-100	TRIM.CAP.	10pF 100V
	W0008	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0013	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0015	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0025-26	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0028-29	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0031-32	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0036	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0073-75	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	W0094-99	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y0002	NRSA02J-0R0X	MG R	0.0Ω 1/10W J

AV TERMINAL PW BOARD ASS'Y (SMD0J003A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R0104	QRE141J-750Y	C R	75Ω 1/4W J
	R0106	QRE141J-750Y	C R	75Ω 1/4W J
	R0108	QRE141J-750Y	C R	75Ω 1/4W J
	R0112	QRE141J-750Y	C R	75Ω 1/4W J
	R0204	QRE141J-750Y	C R	75Ω 1/4W J
	R0304	QRE141J-750Y	C R	75Ω 1/4W J
	CAPACITOR			
	C0102-04	QEKC1CM-106Z	E CAP.	10µF 16V M
	C0105-08	QCB31HK-472Z	C CAP.	4700pF 50V K
	C0109	QETN1AM-108Z	E CAP.	1000µF 10V M
	C0202	QCB31HK-103Z	C CAP.	0.01µF 50V K
	C0203-06	QCB31HK-472Z	C CAP.	4700pF 50V K
	C0209	QETN1AM-108Z	E CAP.	1000µF 10V M
	C0302	QCB31HK-103Z	C CAP.	0.01µF 50V K
	C0305-06	QCB31HK-472Z	C CAP.	4700pF 50V K
	COIL			
	L0101-04	QQL211K-5R6Y	PEAKING COIL	5.6µH
	L0105	QQR0716-001Z	LEAD CORE	
	L0201-04	QQL211K-5R6Y	PEAKING COIL	5.6µH
	L0205	QQR0716-001Z	LEAD CORE	
	L0301-02	QQL211K-5R6Y	PEAKING COIL	5.6µH
	L0303	QQR0716-001Z	LEAD CORE	
	DIODE			
	D0101-05	MTZJ13B-T2	ZENER DIODE	

⚠	Symbol No.	Part No.	Part Name	Description
	OTHERS			
	CN0008	QGB2004N1-35	HQF CONNECTOR	
	J0001-03	CE40529-006	SCART CONNECTOR	

SUB MICON & AUTO PANORAMA PW BOARD ASS'Y (SMD0W003A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R0001	NRSA02J-101X	MG R	100Ω 1/10W J
	R0002	NRSA02J-104X	MG R	100kΩ 1/10W J
	R0003	NRSA02J-393X	MG R	39kΩ 1/10W J
	R0004	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R0005-07	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0008	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0009	NRSA02J-331X	MG R	330Ω 1/10W J
	R0010	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0011	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R0012	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R0020-26	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0045	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0051	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0054	NRSA02J-103X	MG R	10kΩ 1/10W J
	R0060	NRSA02J-823X	MG R	82kΩ 1/10W J
	R0751	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0752-57	NRSA02J-103X	MG R	10kΩ 1/10W J
	R0758	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0759-60	NRSA02J-103X	MG R	10kΩ 1/10W J
	R0761-66	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	CAPACITOR			
	C0001	NEN51AM-336X	CHIP AL BP E CAP	33µF 10V M
	C0002	NDC21HJ-221X	C CAP.	220pF 50V J
	C0003	NDC21HJ-220X	C CAP.	22pF 50V J
	C0004-05	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C0006	NEH71CM-476X	E CAP.	47µF 16V M
	C0009	NEH71CM-106X	E CAP.	10µF 16V M
	C0010-11	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C0751	NEH71CM-476X	E CAP.	47µF 16V M
	C0752-57	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C0758	NCB21HK-103X	C CAP.	0.01µF 50V K
	DIODE			
	D0005	MA3051/M/-X	ZENER DIODE	
	D0751	MA111-X	SI.DIODE	
	D0752-53	MA3062/M/-X	ZENER DIODE	
	TRANSISTOR			
	Q0001-02	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q0003	2SA1162/YG/-X	SI.TRANSISTOR	
	Q0004-05	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q0751-52	2SC2712/YG/-X	SI.TRANSISTOR	
	IC			
	IC0001	JCC5035	I C	

⚠	Symbol No.	Part No.	Part Name	Description
	IC			
	IC0002	MN1382/Q/-X	I.C.(MONO-ANA)	
	IC0751	SAB-C161RI-W	I.C.(DIGI-MOS)	
	IC0752	MX23C4000PC10M1	I.C.(MEMORY-OTH)	
	IC0753	BR24C16F-X	I.C.(MEMORY-OTH)	
	OTHERS			
	X0001	CE42564-001Y	CER.RESONATOR	
	X0751	QAX0534-001	C RESONATOR	

100Hz PW BOARD ASS'Y (SMD0Z005A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R0001-02	NRSA02J-101X	MG R	100Ω 1/10W J
	R0004	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0005	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0101	NRSA02J-101X	MG R	100Ω 1/10W J
	R0102	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0103	NRSA02J-331X	MG R	330Ω 1/10W J
	R0104	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0105	NRSA02J-473X	MG R	47kΩ 1/10W J
	R0106	NRSA02J-273X	MG R	27kΩ 1/10W J
	R0107	NRSA02J-331X	MG R	330Ω 1/10W J
	R0108	NRSA02J-181X	MG R	180Ω 1/10W J
	R0109-10	NRSA02J-101X	MG R	100Ω 1/10W J
	R0111	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0112	NRSA02J-101X	MG R	100Ω 1/10W J
	R0113	NRSA02J-471X	MG R	470Ω 1/10W J
	R0114	NRSA02J-221X	MG R	220Ω 1/10W J
	R0121	NRSA02J-101X	MG R	100Ω 1/10W J
	R0122	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0123	NRSA02J-331X	MG R	330Ω 1/10W J
	R0124	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0125	NRSA02J-473X	MG R	47kΩ 1/10W J
	R0126	NRSA02J-273X	MG R	27kΩ 1/10W J
	R0127	NRSA02J-271X	MG R	270Ω 1/10W J
	R0128	NRSA02J-181X	MG R	180Ω 1/10W J
	R0129	NRSA02J-101X	MG R	100Ω 1/10W J
	R0130	NRSA02J-330X	MG R	33Ω 1/10W J
	R0131	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0132	NRSA02J-101X	MG R	100Ω 1/10W J
	R0133	NRSA02J-471X	MG R	470Ω 1/10W J
	R0134	NRSA02J-221X	MG R	220Ω 1/10W J
	R0141	NRSA02J-101X	MG R	100Ω 1/10W J
	R0142	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0143	NRSA02J-331X	MG R	330Ω 1/10W J
	R0144	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0145	NRSA02J-473X	MG R	47kΩ 1/10W J
	R0146	NRSA02J-273X	MG R	27kΩ 1/10W J
	R0147	NRSA02J-271X	MG R	270Ω 1/10W J
	R0148	NRSA02J-181X	MG R	180Ω 1/10W J
	R0149	NRSA02J-101X	MG R	100Ω 1/10W J
	R0150	NRSA02J-150X	MG R	15Ω 1/10W J
	R0151	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0152	NRSA02J-101X	MG R	100Ω 1/10W J
	R0153	NRSA02J-471X	MG R	470Ω 1/10W J
	R0154	NRSA02J-221X	MG R	220Ω 1/10W J
	R0155	NRSA02J-100X	MG R	10Ω 1/10W J
	R0156	NRSA02J-122X	MG R	1.2kΩ 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R0157	NRSA02J-560X	MG R	56Ω 1/10W J
	R0158	NRSA02J-680X	MG R	68Ω 1/10W J
	R0159	NRSA02J-101X	MG R	100Ω 1/10W J
	R0160	NRSA02J-333X	MG R	33kΩ 1/10W J
	R0161	NRSA02J-223X	MG R	22kΩ 1/10W J
	R0162	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0163	NRSA02J-181X	MG R	180Ω 1/10W J
	R0164	NRSA02J-680X	MG R	68Ω 1/10W J
	R0165	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0171	NRSA02J-101X	MG R	100Ω 1/10W J
	R0172	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0173	NRSA02J-182X	MG R	1.8kΩ 1/10W J
	R0174	NRSA02J-560X	MG R	56Ω 1/10W J
	R0175	NRSA02J-105X	MG R	1MΩ 1/10W J
	R0176	NRSA02J-681X	MG R	680Ω 1/10W J
	R0177	NRSA02J-104X	MG R	100kΩ 1/10W J
	R0178	NRSA02J-101X	MG R	100Ω 1/10W J
	R0179	NRSA02J-471X	MG R	470Ω 1/10W J
	R0180	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0181-82	NRSA02F-392X	MG R	3.9kΩ 1/10W F
	R0183-84	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0185	NRSA02F-392X	MG R	3.9kΩ 1/10W F
	R0186	NRSA02F-332X	MG R	3.3kΩ 1/10W F
	R0187	NRSA02J-101X	MG R	100Ω 1/10W J
	R0188	NRSA02J-563X	MG R	56kΩ 1/10W J
	R0189	NRSA02J-470X	MG R	47Ω 1/10W J
	R0190	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0191	NRSA02J-221X	MG R	220Ω 1/10W J
	R0192	NRSA02J-220X	MG R	22Ω 1/10W J
	R0193	NRSA02J-104X	MG R	100kΩ 1/10W J
	R0201-16	NRSA02J-101X	MG R	100Ω 1/10W J
	R0221-36	NRSA02J-101X	MG R	100Ω 1/10W J
	R0303-18	NRSA02J-101X	MG R	100Ω 1/10W J
	R0401	NRSA02J-103X	MG R	10kΩ 1/10W J
	R0403	NRSA02J-223X	MG R	22kΩ 1/10W J
	R0404	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R0406	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0408	NRSA02J-561X	MG R	560Ω 1/10W J
	R0409	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0411	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0412	NRSA02J-561X	MG R	560Ω 1/10W J
	R0413	NRSA02J-101X	MG R	100Ω 1/10W J
	R0415	NRSA02J-151X	MG R	150Ω 1/10W J
	R0417	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0418	NRSA02J-220X	MG R	22Ω 1/10W J
	R0419	NRSA02J-101X	MG R	100Ω 1/10W J
	R0420	NRSA02J-471X	MG R	470Ω 1/10W J
	R0425	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0426	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0428	NRSA02F-5231X	MG R	5.23kΩ 1/10W F
	R0429	NRSA02F-333X	MG R	33kΩ 1/10W F
	R0431	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0432	NRSA02J-561X	MG R	560Ω 1/10W J
	R0433	NRSA02J-101X	MG R	100Ω 1/10W J
	R0435	NRSA02J-151X	MG R	150Ω 1/10W J
	R0437	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0438	NRSA02J-220X	MG R	22Ω 1/10W J
	R0439	NRSA02J-101X	MG R	100Ω 1/10W J
	R0440	NRSA02J-471X	MG R	470Ω 1/10W J
	R0441	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0442	NRSA02F-562X	MG R	5.6kΩ 1/10W F
	R0443	NRSA02F-333X	MG R	33kΩ 1/10W F
	R0451	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0452	NRSA02J-561X	MG R	560Ω 1/10W J
	R0453	NRSA02J-101X	MG R	100Ω 1/10W J
	R0455	NRSA02J-151X	MG R	150Ω 1/10W J
	R0457	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0458	NRSA02J-220X	MG R	22Ω 1/10W J
	R0459	NRSA02J-101X	MG R	100Ω 1/10W J
	R0460	NRSA02J-471X	MG R	470Ω 1/10W J
	R0461	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0462	NRSA02F-5231X	MG R	5.23kΩ 1/10W F

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description	
	R0463	NRSA02F-333X	MG R	33kΩ 1/10W	F
	R0471	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0472	NRSA02J-391X	MG R	390Ω 1/10W	J
	R0473	NRSA02J-101X	MG R	100Ω 1/10W	J
	R0475	NRSA02J-330X	MG R	33Ω 1/10W	J
	R0476	NRSA02J-122X	MG R	1.2kΩ 1/10W	J
	R0477	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R0478	NRSA02J-220X	MG R	22Ω 1/10W	J
	R0479	NRSA02J-101X	MG R	100Ω 1/10W	J
	R0480	NRSA02J-221X	MG R	220Ω 1/10W	J
	R0486	NRSA02J-683X	MG R	68kΩ 1/10W	J
	R0487	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R0488	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R0489	NRSA02J-562X	MG R	5.6kΩ 1/10W	J
	R0491-92	NRSA02J-102X	MG R	1kΩ 1/10W	J
	R0501	NRSA02J-823X	MG R	82kΩ 1/10W	J
	R0504	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R0505	NRSA02J-272X	MG R	2.7kΩ 1/10W	J
	R0506	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R0507	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0512	NRSA02J-103X	MG R	10kΩ 1/10W	J
	R0514-15	NRSA02J-682X	MG R	6.8kΩ 1/10W	J
	R0516	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0602-03	NRSA02J-680X	MG R	68Ω 1/10W	J
	R0604	QRN143J-221X	C R	220Ω 1/4W	J
	R0606	NRSA02J-680X	MG R	68Ω 1/10W	J
	R0607-08	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0609	NRSA02J-100X	MG R	10Ω 1/10W	J
	R0610	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0611	NRSA02J-100X	MG R	10Ω 1/10W	J
	R0612-13	NRSA02J-560X	MG R	56Ω 1/10W	J
	R0614	NRSA02J-100X	MG R	10Ω 1/10W	J
	R0615	NRSA02J-822X	MG R	8.2kΩ 1/10W	J
	R0616	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R0704	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0705-06	NRVA02D-123X	MF R	12kΩ 1/10W	D
	R0708	NRVA02D-123X	MF R	12kΩ 1/10W	D
	R0709	NRVA02D-103X	MF R	10kΩ 1/10W	D
	R0714	NRVA02D-123X	MF R	12kΩ 1/10W	D
	R0715	NRSA02J-333X	MG R	33kΩ 1/10W	J
	R0716	NRSA02J-273X	MG R	27kΩ 1/10W	J
	R0717	NRSA02J-123X	MG R	12kΩ 1/10W	J
	R0718	NRSA02J-473X	MG R	47kΩ 1/10W	J
	R0719	NRSA02J-472X	MG R	4.7kΩ 1/10W	J
	R0720	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R0721	NRSA02J-123X	MG R	12kΩ 1/10W	J
	R0723	NRSA02J-682X	MG R	6.8kΩ 1/10W	J
	R0724	NRSA02J-272X	MG R	2.7kΩ 1/10W	J
	R0726	NRSA02J-153X	MG R	15kΩ 1/10W	J
	R0727	NRSA02J-563X	MG R	56kΩ 1/10W	J
	R0731	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	R0733	NRSA02J-154X	MG R	150kΩ 1/10W	J
	R0734	NRSA02J-123X	MG R	12kΩ 1/10W	J
	R0736	NRSA02J-123X	MG R	12kΩ 1/10W	J
	R0737	NRSA02J-224X	MG R	220kΩ 1/10W	J
	R0738	NRSA02J-273X	MG R	27kΩ 1/10W	J
	R0739	NRSA02J-332X	MG R	3.3kΩ 1/10W	J
	R0740	NRSA02J-682X	MG R	6.8kΩ 1/10W	J
	R0741	NRSA02J-223X	MG R	22kΩ 1/10W	J
	R0742	NRSA02J-224X	MG R	220kΩ 1/10W	J
	R0743	NRSA02J-683X	MG R	68kΩ 1/10W	J
	R0744	NRSA02J-224X	MG R	220kΩ 1/10W	J
	R0745	NRSA02J-563X	MG R	56kΩ 1/10W	J
	R0746	NRSA02J-683X	MG R	68kΩ 1/10W	J

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description	
	C0001	NEH71CM-476X	E CAP.	47µF 16V	M
	C0002	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0003	NEH71CM-476X	E CAP.	47µF 16V	M
	C0004	NCF21EZ-104X	C CAP.	0.1µF 25V	Z

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description	
	C0005	NEH71CM-476X	E CAP.	47µF 16V	M
	C0006	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0007	NEH71CM-476X	E CAP.	47µF 16V	M
	C0008	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0009	NDC21HJ-121X	C CAP.	120pF 50V	J
	C0011	NDC21HJ-270X	C CAP.	27pF 50V	J
	C0102	NDC21HJ-121X	C CAP.	120pF 50V	J
	C0103	NDC21HJ-680X	C CAP.	68pF 50V	J
	C0104	NEN51EM-106X	CHIP AL BP E CAP	10µF 25V	M
	C0105	NCF21HZ-224X	C CAP.	0.22µF 50V	Z
	C0106	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0107	NDC21HJ-390X	C CAP.	39pF 50V	J
	C0108	NEH71CM-476X	E CAP.	47µF 16V	M
	C0109	NEN51HM-105X	CHIP AL BP E CAP	1µF 50V	M
	C0110	NCB21HK-103X	C CAP.	0.01µF 50V	K
	C0111	NDC21HJ-181X	C CAP.	180pF 50V	J
	C0112-14	NEH71CM-106X	E CAP.	10µF 16V	M
	C0122	NDC21HJ-121X	C CAP.	120pF 50V	J
	C0123	NDC21HJ-680X	C CAP.	68pF 50V	J
	C0124	NEN51HM-105X	CHIP AL BP E CAP	1µF 50V	M
	C0125	NCF21HZ-224X	C CAP.	0.22µF 50V	Z
	C0126	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0142	NDC21HJ-121X	C CAP.	120pF 50V	J
	C0143	NDC21HJ-680X	C CAP.	68pF 50V	J
	C0144	NEN51HM-105X	CHIP AL BP E CAP	1µF 50V	M
	C0145	NCF21HZ-224X	C CAP.	0.22µF 50V	Z
	C0146	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0151	NCB21HK-103X	C CAP.	0.01µF 50V	K
	C0152	QETN0JM-228Z	E CAP.	2200µF 6.3V	M
	C0153	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0154-55	NEH71HM-105X	E CAP.	1µF 50V	M
	C0156-57	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0161-62	NEH71CM-106X	E CAP.	10µF 16V	M
	C0163	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0164	NEH71CM-106X	E CAP.	10µF 16V	M
	C0165-80	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0181-82	NDC21HJ-8R0X	C CAP.	8.0pF 50V	J
	C0191	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0192	NEH71CM-106X	E CAP.	10µF 16V	M
	C0193	NCB21HK-103X	C CAP.	0.01µF 50V	K
	C0194	NRSA02J-223X	MG R	22kΩ 1/10W	J
	C0201-02	QETN0JM-477Z	E CAP.	470µF 6.3V	M
	C0203-07	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0208-09	NDC21HJ-150X	C CAP.	15pF 50V	J
	C0301-19	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0401	NEH71CM-106X	E CAP.	10µF 16V	M
	C0402	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0403	NEH71CM-106X	E CAP.	10µF 16V	M
	C0404	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0405-06	NDC21HJ-120X	C CAP.	12pF 50V	J
	C0408-13	NCB21HK-103X	C CAP.	0.01µF 50V	K
	C0414	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0415	NEH71HM-105X	E CAP.	1µF 50V	M
	C0416	NEH71CM-106X	E CAP.	10µF 16V	M
	C0417	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0420	NEH71HM-105X	E CAP.	1µF 50V	M
	C0422	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	C0424	NEH71HM-105X	E CAP.	1µF 50V	M
	C0425	NEH71CM-476X	E CAP.	47µF 16V	M
	C0426	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0432	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	C0434	NEH71HM-105X	E CAP.	1µF 50V	M
	C0435	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0452	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	C0454	NEH71HM-105X	E CAP.	1µF 50V	M
	C0455	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0472	NRSA02J-0R0X	MG R	0.0Ω 1/10W	J
	C0474	NEH71HM-105X	E CAP.	1µF 50V	M
	C0475-76	NCF21EZ-104X	C CAP.	0.1µF 25V	Z
	C0477	NDC21HJ-561X	C CAP.	560pF 50V	J
	C0501	NCB21HK-333X	C CAP.	0.033µF 50V	K
	C0504	NCB21HK-562X	C CAP.	5600pF 50V	K

⚠	Symbol No.	Part No.	Part Name	Description

CAPACITOR

	C0505-06	NCB21HK-393X	C CAP.	0.039µF	50V	K
	C0601	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C0602	NEH71CM-476X	E CAP.	47µF	16V	M
	C0603	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C0605	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C0606	NDC21HJ-681X	C CAP.	680pF	50V	J
	C0701	NCB21HK-102X	C CAP.	1000pF	50V	K
	C0706	NCB21EK-154X	C CAP.	0.15µF	25V	K
	C0707	NCB21EK-104X	C CAP.	0.1µF	25V	K
	C0708	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C0709	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C0710	NEH71CM-106X	E CAP.	10µF	16V	M
	C0711	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C0712	NEH71CM-106X	E CAP.	10µF	16V	M
	C0713	NCB21HK-223X	C CAP.	0.022µF	50V	K

COIL

	L0001-05	NQLO2BJ-4R7X	COIL	4.7µH
	L0101	NQL011K-3R3X	COIL	3.3µH
	L0121	NQL011K-3R3X	COIL	3.3µH
	L0141	NQL011K-3R3X	COIL	3.3µH
	L0161	NQLO2BJ-100X	COIL	10µH
	L0162	NQLO2BJ-3R3X	COIL	3.3µH
	L0163-64	NQLO2BJ-100X	COIL	10µH
	L0201-02	NQLO2BJ-100X	COIL	10µH
	L0301-02	NQLO2BJ-4R7X	COIL	4.7µH

DIODE

	D0001	MA152WK-X	SI.DIODE
	D0101-02	MA3068/M/-X	ZENER DIODE
	D0103	MA3043-X	ZENER DIODE
	D0104-05	MA111-X	SI.DIODE
	D0106	MA3068/M/-X	ZENER DIODE
	D0107	MA111-X	SI.DIODE
	D0401	MA111-X	SI.DIODE
	D0403-10	MA3068/M/-X	ZENER DIODE
	D0411-13	MA111-X	SI.DIODE
	D0414	MA3068/M/-X	ZENER DIODE
	D0701	MA111-X	SI.DIODE

TRANSISTOR

	Q0101	2SA1162/YG/-X	SI.TRANSISTOR
	Q0102	2SC2712/YG/-X	SI.TRANSISTOR
	Q0103	2SA1162/YG/-X	SI.TRANSISTOR
	Q0104	2SC2712/YG/-X	SI.TRANSISTOR
	Q0105	2SA1162/YG/-X	SI.TRANSISTOR
	Q0106-07	2SC2712/YG/-X	SI.TRANSISTOR
	Q0108	2SA1162/YG/-X	SI.TRANSISTOR
	Q0109-10	2SC2712/YG/-X	SI.TRANSISTOR
	Q0111	2SA1162/YG/-X	SI.TRANSISTOR
	Q0121	2SA1162/YG/-X	SI.TRANSISTOR
	Q0122	2SC2712/YG/-X	SI.TRANSISTOR
	Q0123	2SA1162/YG/-X	SI.TRANSISTOR
	Q0124	2SC2712/YG/-X	SI.TRANSISTOR
	Q0141	2SA1162/YG/-X	SI.TRANSISTOR
	Q0142	2SC2712/YG/-X	SI.TRANSISTOR
	Q0143	2SA1162/YG/-X	SI.TRANSISTOR
	Q0144	2SC2712/YG/-X	SI.TRANSISTOR
	Q0151-52	2SC2712/YG/-X	SI.TRANSISTOR
	Q0153	2SA1162/YG/-X	SI.TRANSISTOR
	Q0154	2SC2712/YG/-X	SI.TRANSISTOR
	Q0155	2SA1162/YG/-X	SI.TRANSISTOR
	Q0402	2SC2712/YG/-X	SI.TRANSISTOR
	Q0403-05	2SA1162/YG/-X	SI.TRANSISTOR
	Q0411	2SA1162/YG/-X	SI.TRANSISTOR
	Q0412-15	2SC2712/YG/-X	SI.TRANSISTOR
	Q0431	2SA1162/YG/-X	SI.TRANSISTOR
	Q0432-35	2SC2712/YG/-X	SI.TRANSISTOR
	Q0451	2SA1162/YG/-X	SI.TRANSISTOR
	Q0452-55	2SC2712/YG/-X	SI.TRANSISTOR

⚠	Symbol No.	Part No.	Part Name	Description

TRANSISTOR

	Q0471	2SA1162/YG/-X	SI.TRANSISTOR
	Q0472-74	2SC2712/YG/-X	SI.TRANSISTOR
	Q0501	2SC2712/YG/-X	SI.TRANSISTOR
	Q0601	2SC2712/YG/-X	SI.TRANSISTOR
	Q0702	2SC2712/YG/-X	SI.TRANSISTOR

IC

	IC0101	SDA9206	I C
	IC0102	TC4W66F-X	I.C.(DIGI-MOS)
	IC0201	SDA9400	I C
	IC0301	JCC5043	I C
	IC0401	DDP3310B/E4-W	I C
	IC0601	SN74LVO4ANS-X	I C
	IC0602	TC74AC00F-X	I.C.(DIGI-MOS)
	IC0603	MN1382/Q/-X	I.C.(MONO-ANA)
	IC0701-02	NJM4556AM-XE	I C

OTHERS

	LC0001-04	CE42482-103Y	EMI FILTER			
	LC0101-03	CE42482-470Y	EMI FILTER			
	LC0104	CE42126-101Y	EMI FILTER			
	LC0201	CE42482-103Y	EMI FILTER			
	LC0401-11	CE42126-220Y	EMI FILTER			
	LC0601	CE42126-101Y	EMI FILTER			
	LC0602	CE42482-470Y	EMI FILTER			
	LC0603	CE42126-101Y	EMI FILTER			
	X0101	QAX0549-001Z	X TAL			
	X0201	QAX0359-001Z	CRYSTAL			
	X0401	QAX0548-001Z	X TAL			
	Y0001-14	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J
	Y0017-28	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J

AV-32WL1EK

PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y (SMD-1903A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1002	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1003-06	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1101-03	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1104	NRSA02J-681X	MG R	680Ω 1/10W J
	R1105	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1107	NRSA02J-391X	MG R	390Ω 1/10W J
	R1108	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1109	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1110	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1111	NRSA02J-821X	MG R	820Ω 1/10W J
	R1112	NRSA02J-101X	MG R	100Ω 1/10W J
	R1113	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1121-22	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1123	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1124	NRSA02J-821X	MG R	820Ω 1/10W J
	R1125-27	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1128	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1131-33	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1134	NRSA02J-681X	MG R	680Ω 1/10W J
	R1135	NRSA02J-561X	MG R	560Ω 1/10W J
	R1136	NRSA02J-681X	MG R	680Ω 1/10W J
	R1137	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1138	NRSA02J-391X	MG R	390Ω 1/10W J
	R1140	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1141	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1142	NRSA02J-821X	MG R	820Ω 1/10W J
	R1151	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1152-53	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1154	NRSA02J-681X	MG R	680Ω 1/10W J
	R1155	NRSA02J-561X	MG R	560Ω 1/10W J
	R1156	NRSA02J-681X	MG R	680Ω 1/10W J
	R1157	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1158	NRSA02J-391X	MG R	390Ω 1/10W J
	R1160	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1161	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1162	NRSA02J-821X	MG R	820Ω 1/10W J
	R1171	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1172	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1173	NRSA02J-221X	MG R	220Ω 1/10W J
	R1174	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1175	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1176	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1177	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1178	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1179	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1201-02	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1203	NRSA02J-750X	MG R	75Ω 1/10W J
	R1204	QRK126J-151X	C R	150Ω 1/2W J
	R1205	NRSA02J-101X	MG R	100Ω 1/10W J
	R1206	QRG01GJ-101	OM R	100Ω 1W J
	R1207	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1208	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1209	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1210	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1211	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1212	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1213	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1214	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1215	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1216	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1217	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1218	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1219	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1220	NRSA02J-0R0X	MG R	0.0Ω 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1221	NRSA02J-391X	MG R	390Ω 1/10W J
	R1222	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1223	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1224	NRSA02J-391X	MG R	390Ω 1/10W J
	R1225-26	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1227	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1228	NRSA02J-560X	MG R	56Ω 1/10W J
	R1229	QRK126J-181X	C R	180Ω 1/2W J
	R1231	QRG01GJ-101	OM R	100Ω 1W J
	R1232	NRSA02J-101X	MG R	100Ω 1/10W J
	R1233	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1242	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1243	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1244	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1245	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1246	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1247	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1248	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1249	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1250	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1251	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1252	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1253	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1254	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1255	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1256	NRSA02J-391X	MG R	390Ω 1/10W J
	R1257	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1258	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1259	NRSA02J-391X	MG R	390Ω 1/10W J
	R1260-61	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1262	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1263	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1264	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1265	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1266	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1267-69	NRSA02J-750X	MG R	75Ω 1/10W J
	R1277-79	NRSA02J-750X	MG R	75Ω 1/10W J
	R1280	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1281	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1282	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1283	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1284	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1285	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1286	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1287	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1288	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1289	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1290	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1291	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1292	NRSA02J-271X	MG R	270Ω 1/10W J
	R1301	NRSA02J-101X	MG R	100Ω 1/10W J
	R1302	NRSA02J-471X	MG R	470Ω 1/10W J
	R1303	NRSA02J-101X	MG R	100Ω 1/10W J
	R1304	NRSA02J-471X	MG R	470Ω 1/10W J
	R1305	NRSA02J-221X	MG R	220Ω 1/10W J
	R1306	NRSA02J-271X	MG R	270Ω 1/10W J
	R1307	NRSA02J-101X	MG R	100Ω 1/10W J
	R1308	NRSA02J-471X	MG R	470Ω 1/10W J
	R1309	NRSA02J-101X	MG R	100Ω 1/10W J
	R1310	NRSA02J-471X	MG R	470Ω 1/10W J
	R1311	NRSA02J-221X	MG R	220Ω 1/10W J
	R1312	NRSA02J-271X	MG R	270Ω 1/10W J
	R1313	NRSA02J-101X	MG R	100Ω 1/10W J
	R1314-15	NRSA02J-471X	MG R	470Ω 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1317-18	NRSA02J-101X	MG R	100Ω 1/10W J
	R1320	NRSA02J-221X	MG R	220Ω 1/10W J
	R1323-24	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1326-29	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1330	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1331	NRSA02J-101X	MG R	100Ω 1/10W J
	R1332-33	NRSA02J-471X	MG R	470Ω 1/10W J
	R1334-35	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1336	NRSA02J-101X	MG R	100Ω 1/10W J
	R1337	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1338-40	NRSA02J-101X	MG R	100Ω 1/10W J
	R1341	NRSA02J-183X	MG R	18kΩ 1/10W J
	R1342	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1343-44	NRSA02J-101X	MG R	100Ω 1/10W J
	R1345-46	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1347	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1348	NRSA02J-471X	MG R	470Ω 1/10W J
	R1349	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1350	NRSA02J-271X	MG R	270Ω 1/10W J
	R1381	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1382	NRSA02J-182X	MG R	1.8kΩ 1/10W J
	R1383	NRSA02J-123X	MG R	12kΩ 1/10W J
	R1384	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1385	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1386	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1387	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1388	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1389	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1390	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1391	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1392	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1395-97	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1398	NRSA02J-101X	MG R	100Ω 1/10W J
	R1401-02	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1403	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1404	QRX01GJ-1R0	MF R	1.0Ω 1W J
	R1405	QRL029J-221	OM R	220Ω 2W J
	R1406	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1407-08	QRX01GJ-1R5	MF R	1.5Ω 1W J
	R1409-10	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1461	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1462	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1463	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1464	NRSA02J-123X	MG R	12kΩ 1/10W J
	R1501	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R1551	NRSA02J-100X	MG R	10Ω 1/10W J
	R1552	NRSA02J-124X	MG R	120kΩ 1/10W J
	R1553	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1554	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1555	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1556	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1557	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1558	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1559	NRSA02J-154X	MG R	150kΩ 1/10W J
	R1560	NRSA02J-100X	MG R	10Ω 1/10W J
	R1561	QRN143J-0R0X	C R	0.0Ω 1/4W J
	R1603	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1604	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1605	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1606-07	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1608	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1609	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1611	NRSA02J-331X	MG R	330Ω 1/10W J
	R1612	NRSA02J-561X	MG R	560Ω 1/10W J
	R1613-14	NRSA02J-123X	MG R	12kΩ 1/10W J
	R1615	NRSA02J-681X	MG R	680Ω 1/10W J
	R1616	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1617-18	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1651	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1652	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R1653	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1654	NRSA02J-822X	MG R	8.2kΩ 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R1655	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1656-57	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1659-60	QRN143J-2R2X	C R	2.2Ω 1/4W J
	R1661	NRSA02J-561X	MG R	560Ω 1/10W J
	R1665	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1666	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1668	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1669	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1670	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1671	NRSA02J-273X	MG R	27kΩ 1/10W J
	R1682	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1683	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1684	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1685-86	NRSA02J-681X	MG R	680Ω 1/10W J
	R1687-88	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1703-05	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1708	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1709	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1710	NRSA02J-821X	MG R	820Ω 1/10W J
	R1711	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1713-14	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1716	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1718	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1719	NRSA02J-101X	MG R	100Ω 1/10W J
	R1720	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1721-23	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1724-26	NRSA02J-821X	MG R	820Ω 1/10W J
	R1727	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1728	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1729	NRSA02J-683X	MG R	68kΩ 1/10W J
	R1730	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1731	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1732	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1733	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1734	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1735-36	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1737	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1738	NRSA02J-183X	MG R	18kΩ 1/10W J
	R1739	NRSA02J-331X	MG R	330Ω 1/10W J
	R1740	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1742	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1743	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1744-46	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1747	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1751-52	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1753	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1754	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1755	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1756-57	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1758-59	NRSA02J-221X	MG R	220Ω 1/10W J
	R1760	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1761-65	NRSA02J-221X	MG R	220Ω 1/10W J
	R1766	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1767	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1768	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1770	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1771	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1772-74	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1775-76	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1777	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1778	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1779	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1780	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1791	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1792	NRSA02J-101X	MG R	100Ω 1/10W J
	R1793	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1794	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1797	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1820	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R1880-82	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1883	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1884-86	NRSA02J-103X	MG R	10kΩ 1/10W J

⚠	Symbol No.	Part No.	Part Name	Description		
RESISTOR						
	R1888-89	NRSA02J-103X	MG R	10kΩ 1/10W		J
	R1890	NRSA02J-221X	MG R	220Ω 1/10W		J
	R1891	NRSA02J-273X	MG R	27kΩ 1/10W		J
	R1892-96	NRSA02J-221X	MG R	220Ω 1/10W		J
	R1897	QRG029J-220	OM R	22 Ω	2W	J
	R1901	NRSA02J-101X	MG R	100Ω 1/10W		J
	R1902	NRSA02J-223X	MG R	22kΩ 1/10W		J
	R1903	NRSA02J-472X	MG R	4.7kΩ 1/10W		J
	R1904	NRSA02J-223X	MG R	22kΩ 1/10W		J
	R1905	NRSA02J-102X	MG R	1kΩ 1/10W		J
CAPACITOR						
	C1001	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1002	QETN1HM-107Z	E CAP.	100µF	50V	M
	C1003	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1004	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1007	NCB21HK-222X	C CAP.	2200pF	50V	K
	C1008	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1101-02	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1104	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1105	QENC1HM-474Z	BP E CAP.	0.47µF	50V	M
	C1106	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1107	QETN1AM-227Z	E CAP.	220µF	10V	M
	C1108	NDC21HJ-120X	C CAP.	12pF	50V	J
	C1121-22	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1123	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1124-25	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1128	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1129	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1130	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1131	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1132	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1134	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1135	NDC21HJ-181X	C CAP.	180pF	50V	J
	C1136-39	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1140	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1141	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1151	QETN1AM-227Z	E CAP.	220µF	10V	M
	C1152	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1153	QETN1AM-107Z	E CAP.	100µF	10V	M
	C1154	NDC21HJ-121X	C CAP.	120pF	50V	J
	C1155	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1161	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1163	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1171	NDC21HJ-221X	C CAP.	220pF	50V	J
	C1172	NDC21HJ-560X	C CAP.	56pF	50V	J
	C1173	NDC21HJ-221X	C CAP.	220pF	50V	J
	C1174	NDC21HJ-121X	C CAP.	120pF	50V	J
	C1192	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1193	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1201	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1202	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1203-04	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1205-06	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1207	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1211	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1212-13	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1214-15	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1216-17	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1218-19	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1220	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1221-22	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1223-24	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1231-33	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1234	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1301	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1302	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1303	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1304	QENC1CM-476Z	BP E CAP.	47µF	16V	M
	C1305	QETN1HM-226Z	E CAP.	22µF	50V	M

⚠	Symbol No.	Part No.	Part Name	Description		
CAPACITOR						
	C1306	NCB21HK-223X	C CAP.	0.022µF	50V	K
	C1307-08	QENC1HM-105Z	BP E CAP.	1µF	50V	M
	C1309	NDC21HJ-390X	C CAP.	39pF	50V	J
	C1311-13	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1314	NCB21HK-222X	C CAP.	2200pF	50V	K
	C1315	NCB21CK-474X	C CAP.	0.47µF	16V	K
	C1316	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1317	NCB21EK-154X	C CAP.	0.15µF	25V	K
	C1318	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1319	NCB21HK-332X	C CAP.	3300pF	50V	K
	C1320	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1321-22	NDC21HJ-150X	C CAP.	15pF	50V	J
	C1323	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1325-26	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1327	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1328-32	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1342-44	NDC21HJ-220X	C CAP.	22pF	50V	J
	C1345	NDC21HJ-121X	C CAP.	120pF	50V	J
	C1363-65	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1387-88	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1389-90	QETN0JM-228Z	E CAP.	2200µF	6.3V	M
	C1392	NDC21HJ-680X	C CAP.	68pF	50V	J
	C1396-98	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1403	QFLC2AJ-104Z	M CAP.	0.1µF	100V	J
	C1404	NCB21HK-104X	CHIP CAP.	0.1µF	50V	K
	C1405	NDC21HJ-820X	C CAP.	82pF	50V	J
	C1406	QETM1VM-108	E CAP.	1000µF	35V	M
	C1408	QETN1VM-337Z	E CAP.	330µF	35V	M
	C1409-10	QFV71HJ-474Z	MF CAP.	0.47µF	50V	J
	C1412	QFLC2AJ-104Z	M CAP.	0.1µF	100V	J
	C1417-18	QETN1CM-108Z	E CAP.	1000µF	16V	M
	C1419	NCB21HK-682X	C CAP.	6800pF	50V	K
	C1461	QETN1HM-226Z	E CAP.	22µF	50V	M
	C1551-52	NCB21CK-224X	C CAP.	0.22µF	16V	K
	C1553	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1554-55	NCB21CK-224X	C CAP.	0.22µF	16V	K
	C1601-02	QDC31HJ-2R0Z	C CAP.	2.0pF	50V	J
	C1603-04	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1605-06	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1607-08	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1613-14	NDC21HJ-471X	C CAP.	470pF	50V	J
	C1615	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1616-18	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1619	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1620	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1621-24	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1625-26	NDC21HJ-391X	C CAP.	390pF	50V	J
	C1627-28	NCB21HK-102X	C CAP.	1000pF	50V	K
	C1629	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1630	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1631	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1632	NCF21EZ-104X	C CAP.	0.1µF	25V	Z
	C1633-34	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1635	NCB21HK-562X	C CAP.	5600pF	50V	K
	C1636	QETN1CM-107Z	E CAP.	100µF	16V	M
	C1637-38	NDC21HJ-221X	C CAP.	220pF	50V	J
	C1639-40	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1641	QETN1EM-476Z	E CAP.	47µF	25V	M
	C1642	NCB21HK-562X	C CAP.	5600pF	50V	K
	C1644-45	NDC21HJ-470X	C CAP.	47pF	50V	J
	C1646	NDC21HJ-820X	C CAP.	82pF	50V	J
	C1647	NCB21HK-472X	C CAP.	4700pF	50V	K
	C1648	NDC21HJ-180X	C CAP.	18pF	50V	J
	C1652-53	QETN1HM-105Z	E CAP.	1µF	50V	M
	C1654	QETN1HM-107Z	E CAP.	100µF	50V	M
	C1655	QETN1HM-106Z	E CAP.	10µF	50V	M
	C1656-57	NCF21HZ-224X	C CAP.	0.22µF	50V	Z
	C1658	QETM1HM-228	E CAP.	2200µF	50V	M
	C1661-62	NCF21HZ-224X	C CAP.	0.22µF	50V	Z
	C1663-64	QETM1VM-108	E CAP.	1000µF	35V	M
	C1667	QETN1CM-227Z	E CAP.	220µF	16V	M
	C1676-77	NCB21HK-103X	C CAP.	0.01µF	50V	K
	C1679	QETN1HM-474Z	E CAP.	0.47µF	50V	M

⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C1682	QETN1CM-227Z	E CAP.	220µF 16V M
	C1701	NDC21HJ-471X	C CAP.	470pF 50V J
	C1702	NCB21HK-682X	C CAP.	6800pF 50V K
	C1703	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1704	QETN1AM-227Z	E CAP.	220µF 10V M
	C1705-06	NDC21HJ-9R0X	C CAP.	9.0pF 50V J
	C1707	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1708	NCB21HK-333X	C CAP.	0.033µF 50V K
	C1709	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1710	QETN1EM-476Z	E CAP.	47µF 25V M
	C1711	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1714	QETN1HM-474Z	E CAP.	0.47µF 50V M
	C1715	QETN1EM-476Z	E CAP.	47µF 25V M
	C1717	QETN1HM-106Z	E CAP.	10µF 50V M
	C1718	NDC21HJ-471X	C CAP.	470pF 50V J
	C1719	NCF21CZ-105X	C CAP.	1µF 16V Z
	C1720	NCB21HK-102X	C CAP.	1000pF 50V K
	C1757	NCS21HJ-471X	C CAP.	470pF 50V J
	C1758	QETN1AM-227Z	E CAP.	220µF 10V M
	C1759	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1760-61	NDC21HJ-150X	C CAP.	15pF 50V J
	C1762	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1763	QETN1EM-476Z	E CAP.	47µF 25V M
	C1764	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1766-68	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1774	NDC21HJ-151X	C CAP.	150pF 50V J
	C1776-77	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1780	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1781	NDC21HJ-101X	C CAP.	100pF 50V J
	C1782	NCB21HK-102X	C CAP.	1000pF 50V K
	C1783	NDC21HJ-151X	C CAP.	150pF 50V J
	C1784	QETN1CM-227Z	E CAP.	220µF 16V M
	C1785	NCB21HK-102X	C CAP.	1000pF 50V K
	C1901	QETN1CM-107Z	E CAP.	100µF 16V M
	C1902	QETN1HM-106Z	E CAP.	10µF 50V M
	TRANSFORMER			
	T1101	CE42697-001	LOWPASS FILTER	
	T1111	CE42697-001	LOWPASS FILTER	
	T1121	CE42697-001	LOWPASS FILTER	
	COIL			
	L1001-02	QQL01BK-8R2Z	PEAKING COIL	8.2µH
	L1004	QQL01BK-5R6Z	PEAKING COIL	5.6µH
	L1101	QRN143J-0R0X	C R	0.0Ω 1/4W J
	L1102-05	QQL03BJ-220Z	PEAKING COIL	22µH
	L1111	QQL03BJ-220Z	PEAKING COIL	22µH
	L1121	QQL03BJ-330Z	PEAKING COIL	33µH
	L1302	NQL024J-5R6X	COIL	5.6µH
	L1601-02	QRN143J-0R0X	C R	0.0Ω 1/4W J
	L1603	QQL01BK-100Z	PEAKING COIL	10µH
	L1604	QQL01BJ-180Z	PEAKING COIL	18µH
	L1605	QQL01BJ-220Z	PEAKING COIL	22µH
	L1606-07	QQL01BK-5R6Z	PEAKING COIL	5.6µH
	L1701	QQL01BK-331Z	PEAKING COIL	330µH
	L1702	QQL01BK-3R9Z	PEAKING COIL	3.9µH
	L1752	QRN143J-0R0X	C R	0.0Ω 1/4W J
	L1753	QQL01BK-4R7Z	PEAKING COIL	4.7µH
	DIODE			
	D1201-11	MA3130/H/-X	ZENER DIODE	
	D1214-15	MA3130/H/-X	ZENER DIODE	
	D1402	BYD33D-T3	SI.DIODE	
	D1403-04	MA3330/L/-X	ZENER DIODE	
	D1461	MA111-X	SI.DIODE	
	D1462	MA3220/M/-X	ZENER DIODE	
	D1502	MA111-X	SI.DIODE	
	D1504	MA111-X	SI.DIODE	

⚠	Symbol No.	Part No.	Part Name	Description
	DIODE			
	D1601	MA3062/M/-X	ZENER DIODE	
	D1653-54	MA3330/L/-X	ZENER DIODE	
	D1657	MA111-X	SI.DIODE	
	D1658	MA153A-X	SI.DIODE	
	D1660	MA111-X	SI.DIODE	
	D1661	MA153A-X	SI.DIODE	
	D1664	MA111-X	SI.DIODE	
	D1669	MA152WK-X	SI.DIODE	
	D1670	MA111-X	SI.DIODE	
	D1701-02	MA111-X	SI.DIODE	
	D1704	1SS244-T2	SI.DIODE	
	D1708	MA111-X	SI.DIODE	
	D1709	MA3068/M/-X	ZENER DIODE	
	D1712	MA111-X	SI.DIODE	
	D1753	MA111-X	SI.DIODE	
	D1754	MA3062/M/-X	ZENER DIODE	
	D1771-76	MA3056/M/-X	ZENER DIODE	
	D1901	MA3130/H/-X	ZENER DIODE	
	TRANSISTOR			
	Q1101-04	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1111	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1112	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1113-14	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1121	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1122	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1123-24	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1131-32	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1201-02	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1203	2SC1815/YG/-T	SI.TRANSISTOR	
	Q1204-05	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1206-07	DTC323TK-X	DIGI.TRANSISTOR	
	Q1208	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1209	2SA1015/YG/-T	SI.TRANSISTOR	
	Q1211	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1213-14	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1215-16	DTC323TK-X	DIGI.TRANSISTOR	
	Q1217	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1220-21	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1303-04	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1305	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1346	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1351	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1381-83	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1461-62	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1603	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1651	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1652-53	DTC323TK-X	DIGI.TRANSISTOR	
	Q1657	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1659-60	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1701-08	2SC2712/YG/-X	SI.TRANSISTOR	
	Q1709	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1752	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1901	2SA1162/YG/-X	SI.TRANSISTOR	
	Q1902	2SC2712/YG/-X	SI.TRANSISTOR	
	IC			
	IC1101	TC9090AN	I.C.(DIGI-MOS)	
	IC1301	CXA1545AS	I.C.(MONO-ANA)	
	IC1303	TDA9143/N3	I.C.(MONO-ANA)	
	IC1304	TDA4665/V5	I.C.(MONO-ANA)	
	IC1305	LA7016	I.C.(MONO-ANA)	
	IC1401	LA7841	I.C.(MONO-ANA)	
	IC1551	LA6515	I.C.(MONO-ANA)	
	IC1601	MSP3410DPPC5-8C	I C	
	IC1602	BA4558F-X	I.C.(MONO-ANA)	
	IC1651	TA8246AH	I.C.(HYBRID)	
	IC1701	M37280MK-105SP	I.C.(MICRO-COMP)	
	IC1702	L78LR05E-MA	I.C.	
	IC1703	AT24C16-32WFX1	I.C.	(SERVICE)
	IC1754	SDA5275S	I.C.(MICRO-PROC)	
	IC1755	M5M51440D-60ZS	I.C.(D-RAM)	

⚠	Symbol No.	Part No.	Part Name	Description
	OTHERS			
	CN1002	QGF1220C2-25	FFC/FPC CONNECTO	
	J1651	QNN0296-001	PIN JACK	
	K1001	QRN143J-0R0X	C R	0.0Ω 1/4W J
	K1009	QRN143J-0R0X	C R	0.0Ω 1/4W J
	K1101	QQR0621-002Z	BEADS CORE	
	K1401	QQR0621-002Z	BEADS CORE	
	K1701	QQR0621-002Z	BEADS CORE	
	LC1101	TA78L005AP-T	I.C.(H)	
	LC1601	CE42142-103Z	EMI FILTER	
	TU1001	QAU0132-001	TUNER	
	W1001-02	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	X1311	CE40749-001Z	CRYSTAL	
	X1312	CE40668-001Z	CRYSTAL	
	X1601	CE42546-001Z	CRYSTAL	
	X1701	CST8.00MTW	CER.RESONATOR	
	X1752	QAX0351-001Z	CRYSTAL	
	Y1301-06	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1312-13	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1315	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1328	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1401	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1502-05	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1653	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1657-58	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1661-62	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1701-03	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	Y1750-53	NRSA02J-0R0X	MG R	0.0Ω 1/10W J

POWER & DEF PW BOARD ASS'Y (SMD-2006A-U2)

Refer to PARTS LIST in page 44 for this P.W. board.

CRT SOCKET PW BOARD ASS'Y (SMD-3006A-U2)

Refer to PARTS LIST in page 46 for this P.W. board.

FRONT CONTROL PW BOARD ASS'Y (SMD-8007A-U2)

Refer to PARTS LIST in page 47 for this P.W. board.

SIDE CONTROL JACK PW BOARD ASS'Y (SMD-8107A-U2)

Refer to PARTS LIST in page 47 for this P.W. board.

BBE PW BOARD ASS'Y (SMD0A001A-U2)

Refer to PARTS LIST in page 47 for this P.W. board.

IF PW BOARD ASS'Y (SMD0F903A-U2)

⚠	Symbol No.	Part No.	Part Name	Description
	RESISTOR			
	R0020	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0021	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R0022	NRSA02J-331X	MG R	330Ω 1/10W J
	R0023	NRSA02J-680X	MG R	68Ω 1/10W J
	R0024	NRSA02J-330X	MG R	33Ω 1/10W J
	R0030-31	NRSA02J-150X	MG R	15Ω 1/10W J
	R0057	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R0058-59	NRSA02J-273X	MG R	27kΩ 1/10W J
	R0063	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R0064	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0065	NRSA02J-470X	MG R	47Ω 1/10W J
	R0070-71	NRSA02J-393X	MG R	39kΩ 1/10W J
	R0080-81	NRSA02J-473X	MG R	47kΩ 1/10W J
	R0082	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R0101	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R0102	NRSA02J-471X	MG R	470Ω 1/10W J
	R0108	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0109	NRSA02J-121X	MG R	120Ω 1/10W J
	R0111-12	NRSA02J-151X	MG R	150Ω 1/10W J
	R0113	NRSA02J-271X	MG R	270Ω 1/10W J
	R0114	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R0116	NRSA02J-102X	MG R	1kΩ 1/10W J
	R0140	NRSA02J-474X	MG R	470kΩ 1/10W J
	R0141	NRSA02J-101X	MG R	100Ω 1/10W J
	R0142	NRSA02J-391X	MG R	390Ω 1/10W J
	R0143	NRSA02J-750X	MG R	75Ω 1/10W J
	R0144	NRSA02J-474X	MG R	470kΩ 1/10W J
	R0145	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R0146	NRSA02J-104X	MG R	100kΩ 1/10W J
	CAPACITOR			
	C0020-23	NCB21HK-472X	C CAP.	4700pF 50V K
	C0030	NCB21HK-472X	C CAP.	4700pF 50V K
	C0040	NCB21HK-682X	C CAP.	6800pF 50V K
	C0041	QETN1CM-107Z	E CAP.	100µF 16V M
	C0042	NCB21HK-103X	C CAP.	0.01µF 50V K
	C0043	QETN1CM-107Z	E CAP.	100µF 16V M
	C0044	NCB21HK-103X	C CAP.	0.01µF 50V K
	C0045-46	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	C0047	QETN1CM-227Z	E CAP.	220µF 16V M
	C0048	NCB21HK-103X	C CAP.	0.01µF 50V K
	C0050	QETN1HM-105Z	E CAP.	1µF 50V M
	C0054	NCB21HK-103X	C CAP.	0.01µF 50V K

⚠ Symbol No.	Part No.	Part Name	Description
CAPACITOR			
C0055	QETN1CM-107Z	E CAP.	100µF 16V M
C0056	QETN1HM-474Z	E CAP.	0.47µF 50V M
C0057	NDC21HJ-102X	C CAP.	1000pF 50V J
C0058	NCB21HK-472X	C CAP.	4700pF 50V K
C0060	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
C0062	QETN1HM-474Z	E CAP.	0.47µF 50V M
C0063	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
C0064	NCB21HK-472X	C CAP.	4700pF 50V K
C0065	QETN1HM-105Z	E CAP.	1µF 50V M
C0069-70	NCB21HK-103X	C CAP.	0.01µF 50V K
C0071	QETN1HM-336Z	E CAP.	33µF 50V M
C0080-81	NCB21HK-472X	C CAP.	4700pF 50V K
C0101	QETN1CM-227Z	E CAP.	220µF 16V M
C0104	NDC21HJ-271X	C CAP.	270pF 50V J
C0105	NCB21HK-103X	C CAP.	0.01µF 50V K
C0140	QETN1HM-335Z	E CAP.	3.3µF 50V M
C0141	NDC21HJ-561X	C CAP.	560pF 50V J
C0142	QETN1HM-105Z	E CAP.	1µF 50V M
C0143	QFLC1HJ-683Z	M CAP.	0.068µF 50V J
C0144	QETN1HM-335Z	E CAP.	3.3µF 50V M
C0145	NCB21HK-222X	C CAP.	2200pF 50V K
TRANSFORMER			
T0020	QQR0626-001	I.F.TRANSF.	
T0050	CELT001-307	C.WAVE TRANSF.	
COIL			
L0020	QQLZ014-R47	PEAKING COIL	0.47µH
L0021	NQL011K-1R5X	COIL	1.5µH
L0030	NQL011K-2R2X	COIL	2.2µH
L0040	NQL024J-120X	COIL	12µH
L0042	NQL024J-330X	COIL	33µH
L0054	NQL024J-330X	COIL	33µH
L0070	NQL011K-5R6X	COIL	5.6µH
L0103-04	NQL011K-8R2X	COIL	8.2µH
TRANSISTOR			
Q0012	2SC5083/L-P/-T	SI.TRANSISTOR	
Q0080	2SC2712/YG/-X	SI.TRANSISTOR	
Q0101	2SC2712/YG/-X	SI.TRANSISTOR	
Q0107	2SA1162/YG/-X	SI.TRANSISTOR	
Q0109-10	2SC2712/YG/-X	SI.TRANSISTOR	
IC			
IC0010	TA8865BN	I.C.(MONO-ANA)	
OTHERS			
CF0010-11	QAX0620-001	CERAMIC FILTER	
CF0100	TPSH6.0MB	CERAMIC FILTER	
CF0140	CSB503F30-T2	CER.RESONATOR	
SF0010	QAX0315-001	SAW FILTER	
SF0012	QAX0618-001	SAW FILTER	
W0008	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0013	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0025	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0028-29	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0031-32	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0036	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0074	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0093	QQL244K-820Z	PEAKING COIL	82µH
W0094-96	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
W0098	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
Y0002-04	NRSA02J-0R0X	MG R	0.0Ω 1/10W J

AV TERMINAL PW BOARD ASS'Y (SMD0J003A-U2)

Refer to PARTS LIST in page 49 for this P.W. board.

SUB MICON & AUTO PANORAMA PW BOARD ASS'Y (SMD0W003A-U2)

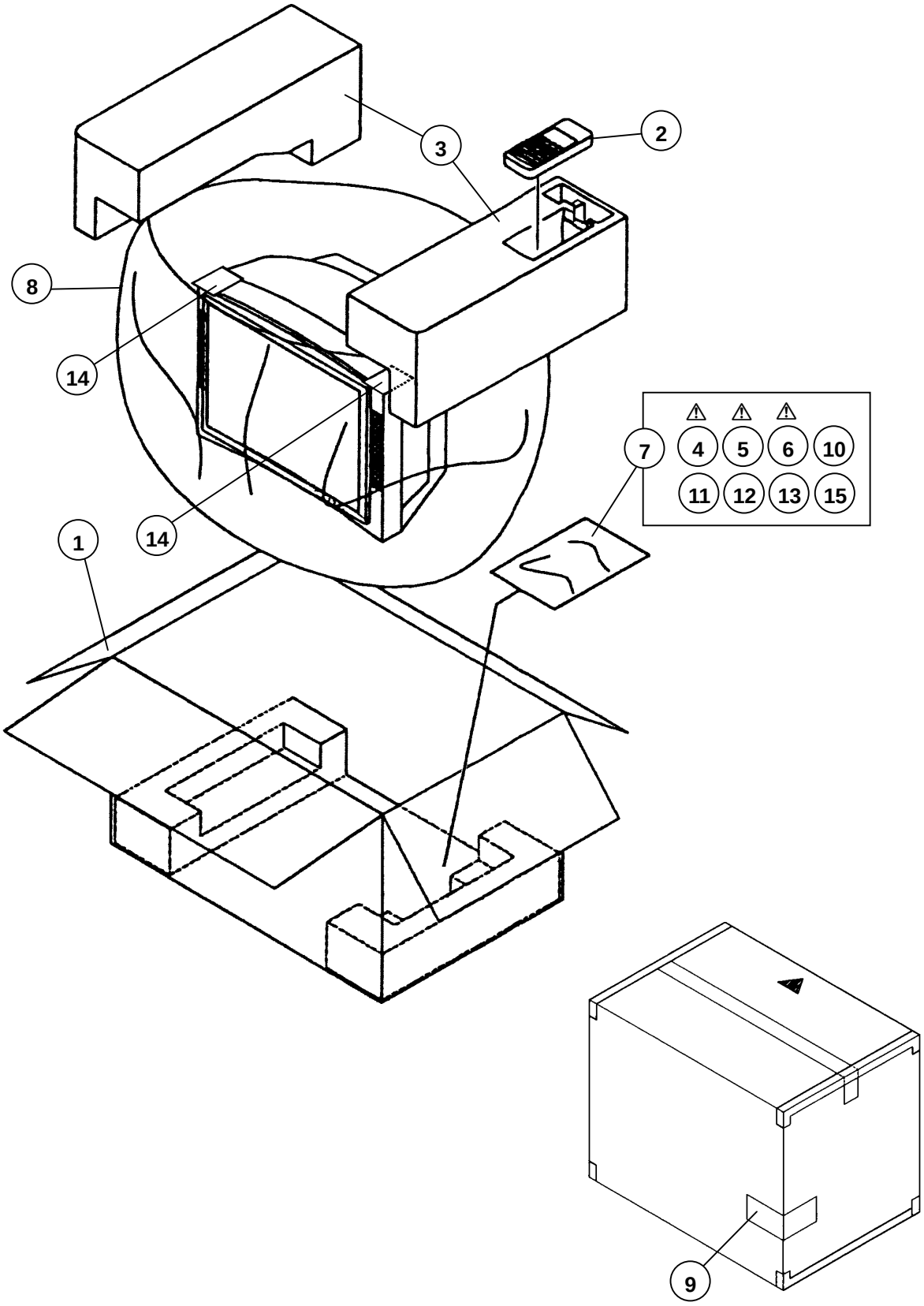
Refer to PARTS LIST in page 49 for this P.W. board.

100Hz PW BOARD ASS'Y (SMD0Z005A-U2)

Refer to PARTS LIST in page 50 for this P.W. board.

AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

PACKING



AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description
AV-32WL1EU				
	1	AEM1002-071-E	PACKING CASE	
	2	RM-C54-1C	REMOCON UNIT	
	3	LC10859-002A-U	CUSHION ASSY	4pcs in 1set
⚠	4	LCT0803-001A-U	INST BOOK	For ENG/GER/FRA/NED/ITA/ESP
⚠	5	LCT0804-001A-U	INST BOOK	For FIN/NOR/DEN/SWE/POR
⚠	6	LCT0805-001A-U	INST BOOK	For POL/CZE/HUN/ROM/BUL/RUS
	7	AEM3021-002-E	DOCUMENT BAGS	
	8	AEM1047-002-E	POLY BAG	
	9	AEM1039-093-E	EURO LABEL	
	10	BT-54013-1E	WARRANTY CARD	
	11	32WL1EU-HSAE	S.DIAGRAM	ONLY ITALY(SERVICE)
	12	AEM1054-001-E	X-RAY CARD	
	14	LC31379-001A	TOP SHEET	
	15	LC30789-002A-U	WARNING LABEL	
AV-32WL1EI				
	1	AEM1002-071-E	PACKING CASE	
	2	RM-C55-1C	REMOCON UNIT	
	3	LC10859-002A-U	PACKING CUSHION	4pcs in 1set
⚠	4	LCT0807-001A-U	INST.BOOK	
	7	AEM3021-002-E	POLY BAG	
	8	AEM1047-002-E	POLY BAG	
	9	AEM1052-002-E	EURO LABEL	
	10	BT-54013-1E	WARRANTY CARD	
	14	LC31379-001A	TOP SHEET	
AV-32WL1EK				
	1	AEM1002-071-E	PACKING CASE	
	2	RM-C55-1C	REMOCON UNIT	
	3	LC10859-002A-U	PACKING CUSHION	4pcs in 1set
⚠	4	LCT0806-001A-U	INST.BOOK	
	7	AEM3021-002-E	POLY BAG	
	8	AEM1047-002-E	POLY BAG	
	9	AEM1052-001-E	EURO LABEL	
	10	BT-54013-1E	WARRANTY CARD	
	13	AEM3148-001-E	REG SHEET	
	14	LC31379-001A	TOP SHEET	

JVC
VICTOR COMPANY OF JAPAN, LIMITED
TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan

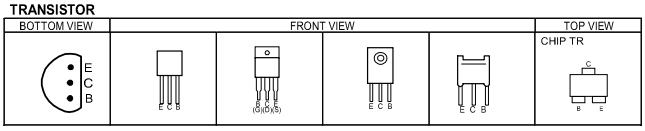
AV-32WL1EU-U #4
AV-32WL1EI-U #4
AV-32WL1EK-U #4
Printed in Japan
VP 0006
DP3052

CONTENTS

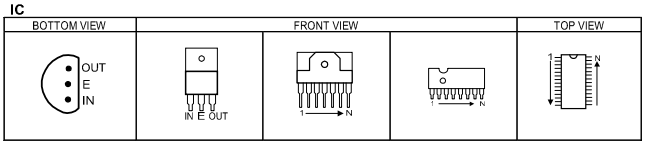
SEMICONDUCTOR SHAPES 2-2
BLOCK DIAGRAM 2-3
CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM 2-5
POWER & DEF PWB CIRCUIT DIAGRAM 2-11
SUB MICON & AUTO PANORAMA PWB CIRCUIT DIAGRAM 2-13
100Hz PWB CIRCUIT DIAGRAM 2-15
IF PWB CIRCUIT DIAGRAM [AV-32WL1EU / AV-32WL1EI] 2-17
IF PWB CIRCUIT DIAGRAM [AV-32WL1EK] 2-19
BBE PWB CURCUIT DIAGRAM 2-21
FRONT CONTROL PWB / SIDE CONTROL JACK PWB CURCUIT DIAGRAM 2-23
CRT SOCKET PWB CIRCUIT DIAGRAM 2-25
AV TERMINAL PWB CIRCUIT DIAGRAM 2-27
PATTERN DIAGRAMS
MAIN PWB PATTERN 2-29
POWER & DEF PWB PATTERN 2-31
AV TERMINAL PWB PATTERN 2-33
IF PWB PATTERN 2-34
CRT SOCKET PWB PATTERN 2-35
FRONT CONTROL PWB PATTERN 2-37
SIDE CONTROL JACK PWB PATTERN 2-38
100Hz PWB PATTERN (PARTS SIDE) 2-39
100Hz PWB PATTERN (SOLDER SIDE) 2-40
SUB MICON & AUTOPANORAMA PWB PATTERN 2-41
BBE PWB PATTERN 2-42

SEMICONDUCTOR SHAPES

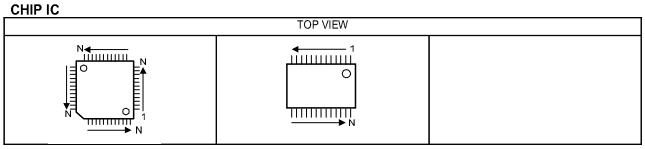
TRANSISTOR



IC



CHIP IC



AV-32WL1EU / AV-32WL1EI / AV-32WL1EK
STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	:PAL Colour bar signal
(2)Setting positions of each knob/button and variable resistor	:Original setting position when shipped
(3)Internal resistance of tester	:DC 20kΩ/V
(4)Oscilloscope sweeping time	:H ⇒ 20μS/div
	:V ⇒ 5mS/div
	:Others ⇒ Sweeping time is specified
(5)Voltage values	:All DC voltage values

∗Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

●In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

●Resistance value

No unit	:[Ω]
K	:[KΩ]
M	:[MΩ]

●Rated allowable power

No indication	:1/10[W]
Others	:As specified

●Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

*Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

●Capacitance value

1 or higher	:[pF]
less than 1	:[μF]

●Withstand voltage

No indication	:DC50[V]
AC indicated	:AC withstand voltage [V]
Others	:DC withstand voltage [V]

*Electrolytic Capacitors
47/50[Example]:Capacitance value [μF]/withstand voltage[V]

●Type

No indication	:Ceramic capacitor
MY	:Mylar capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

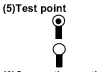
(3)Coils

No unit	:[μH]
Others	:As specified

(4)Power Supply

*Respective voltage values are indicated

(5)Test point



(6)Connecting method

(7)Ground symbol

:LIVE side ground
:ISOLATED(NEUTRAL) side ground
:EARTH ground
:DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

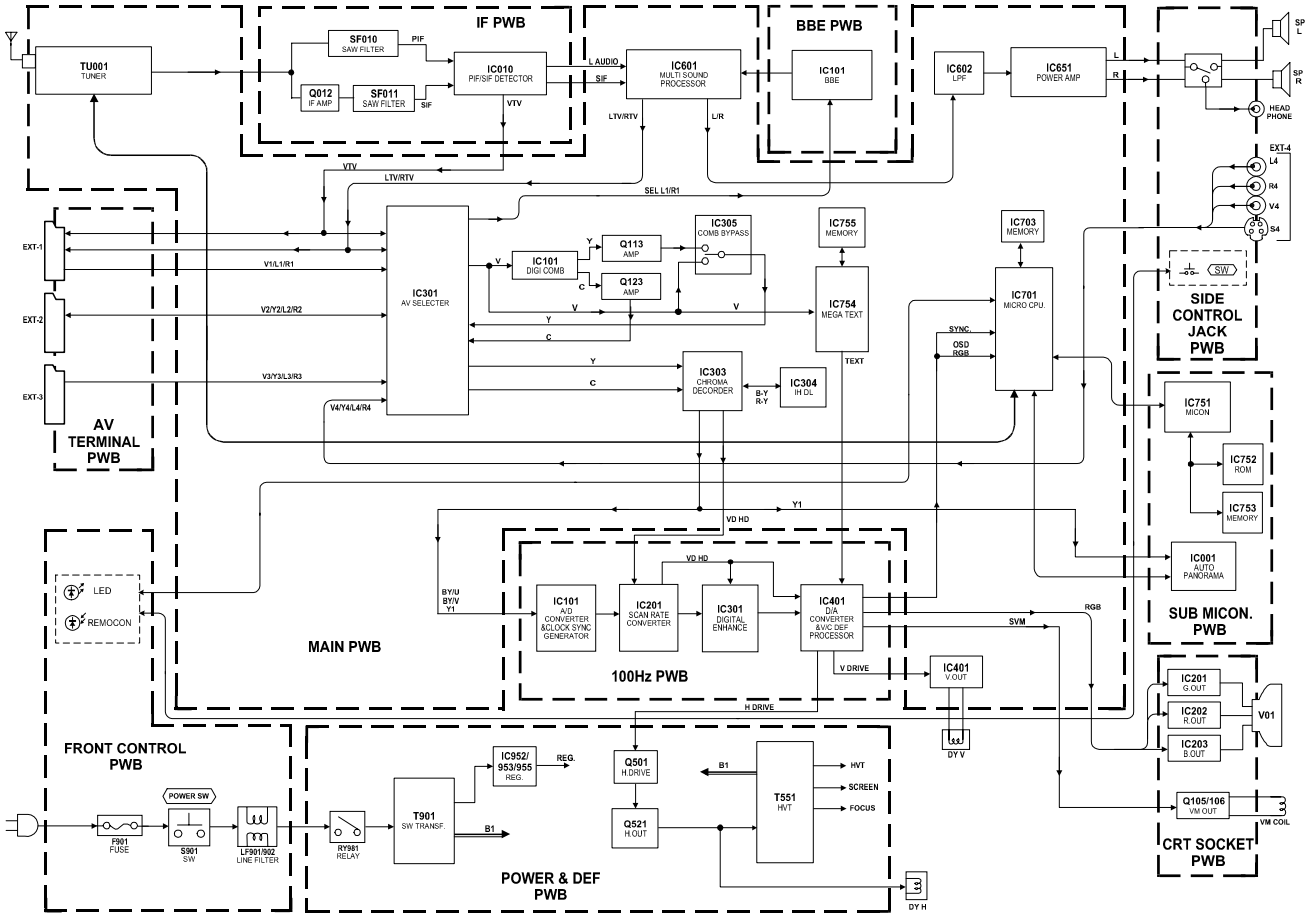
(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇**Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

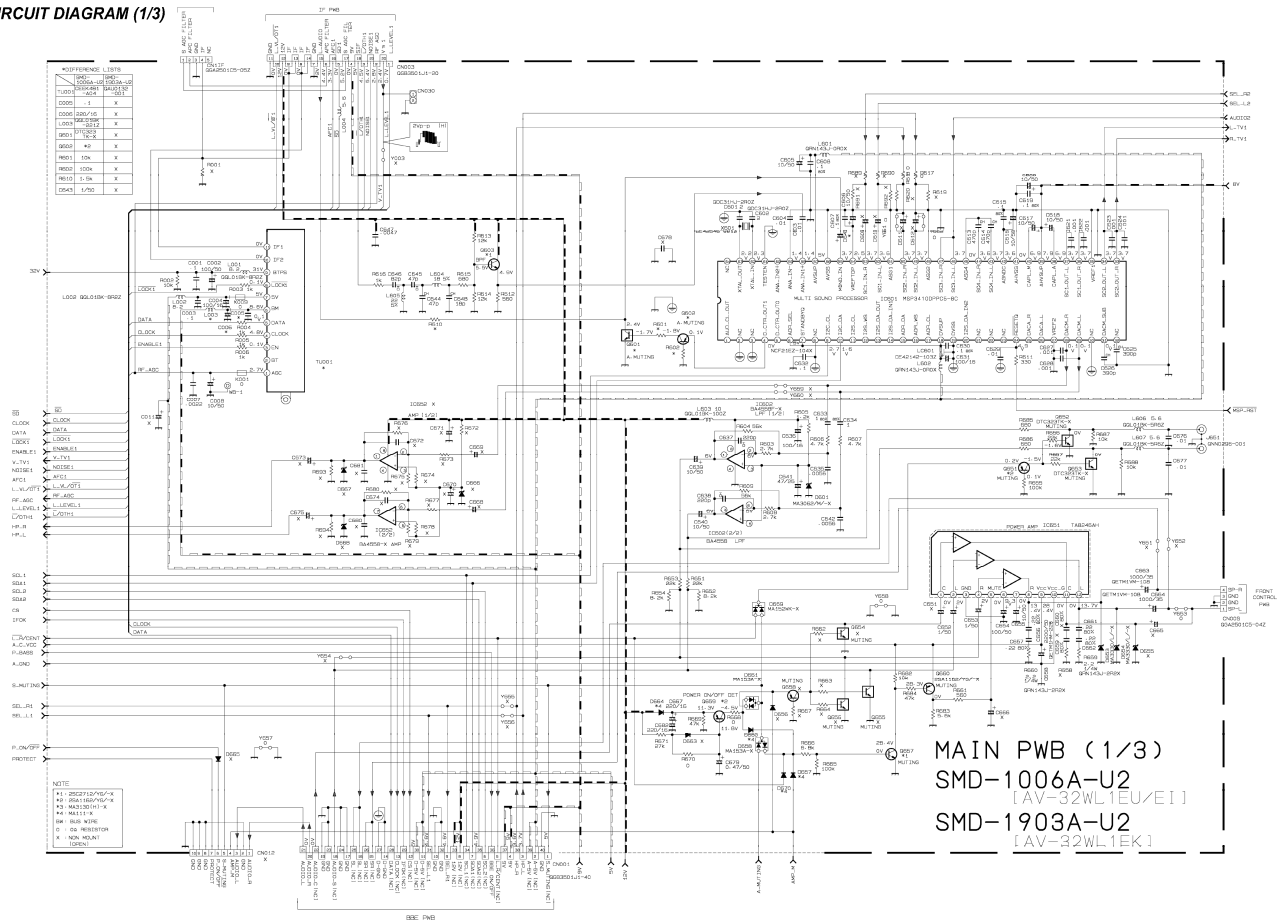
AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

BLOCK DIAGRAM



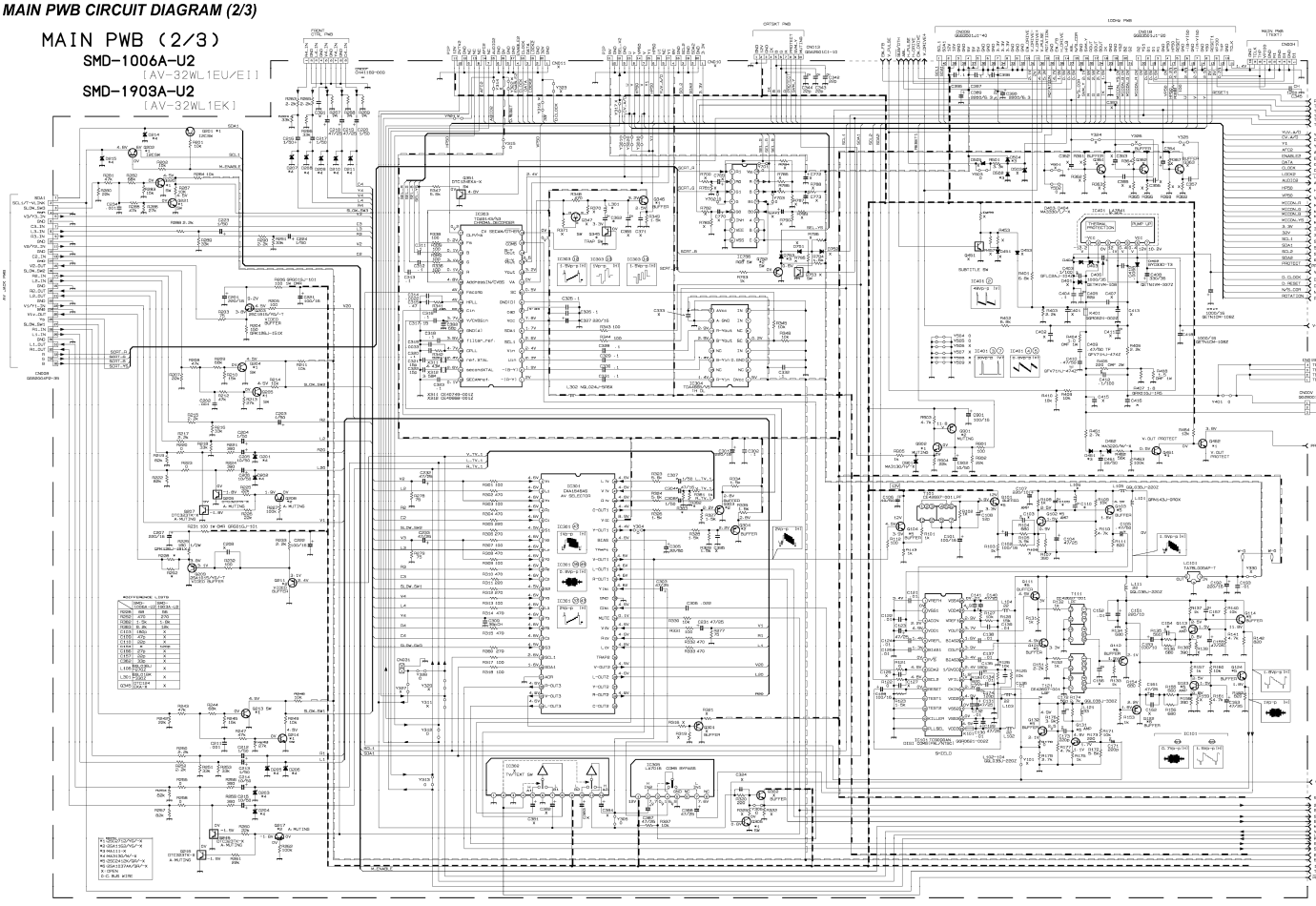
CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/3)

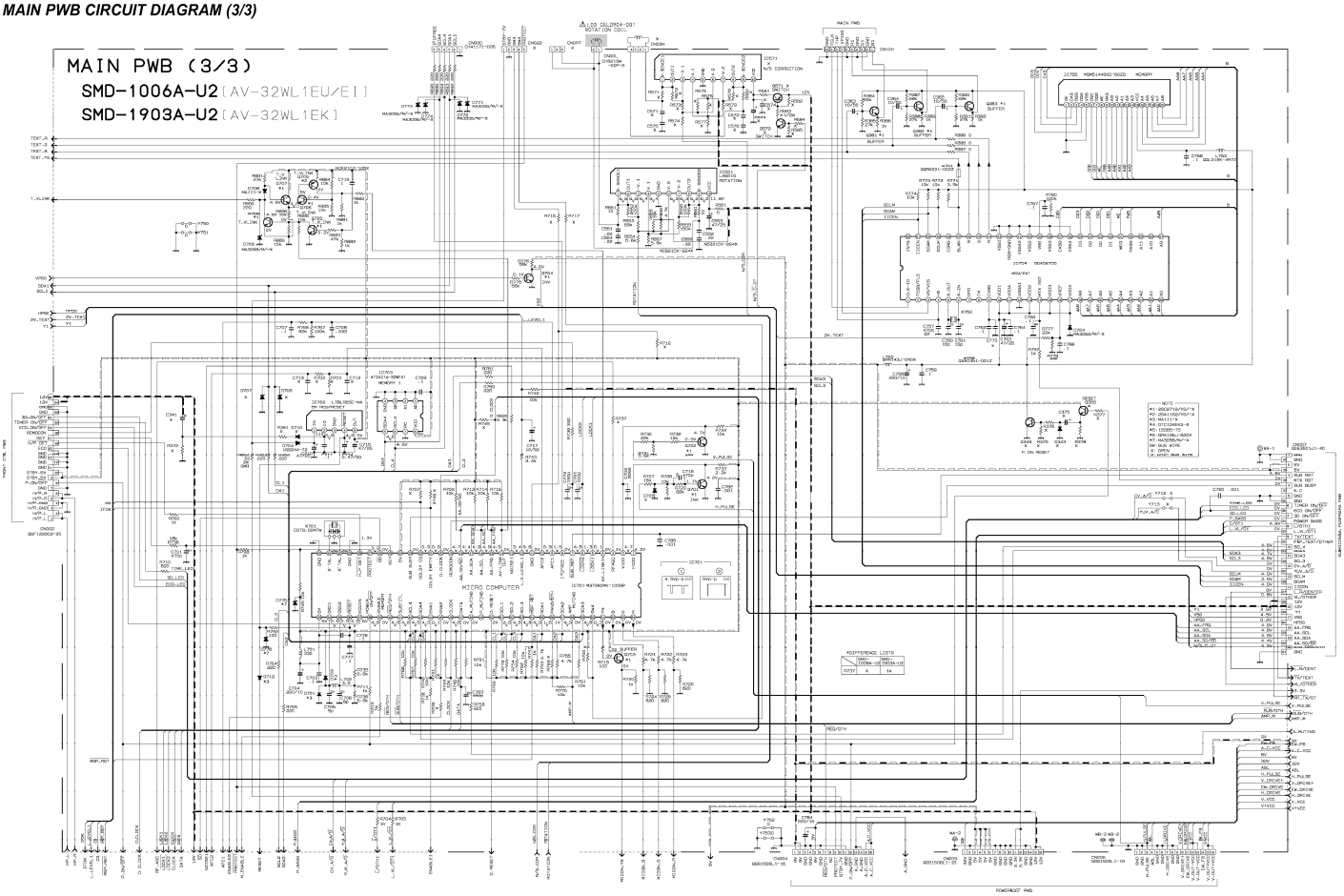


MAIN PWB CIRCUIT DIAGRAM (2/3)

MAIN PWB (2/3)
SMD-1006A-U2
[AV-32WL1EU/EI]
SMD-1903A-U2
[AV-32WL1EK]

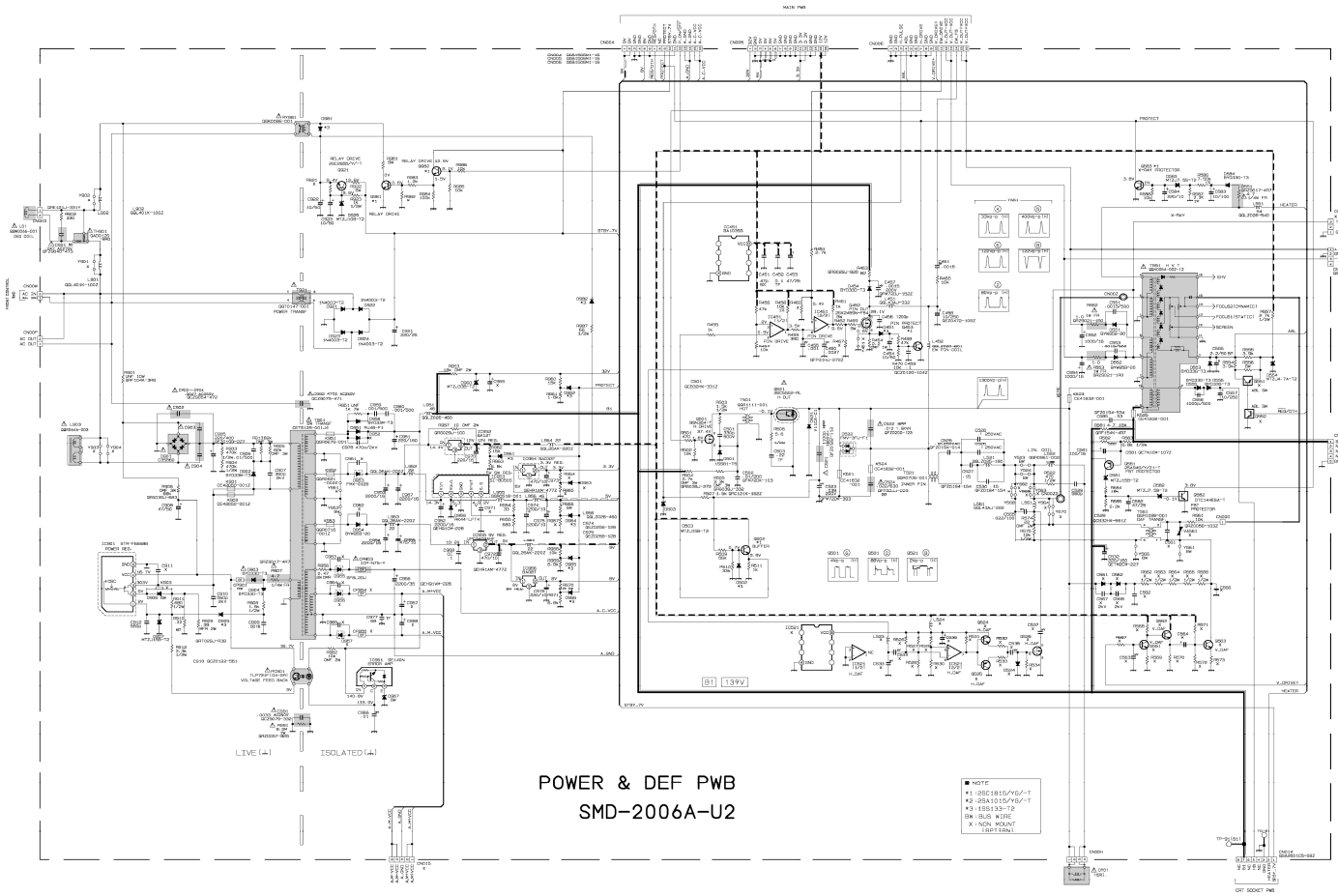


MAIN PWB CIRCUIT DIAGRAM (3/3)



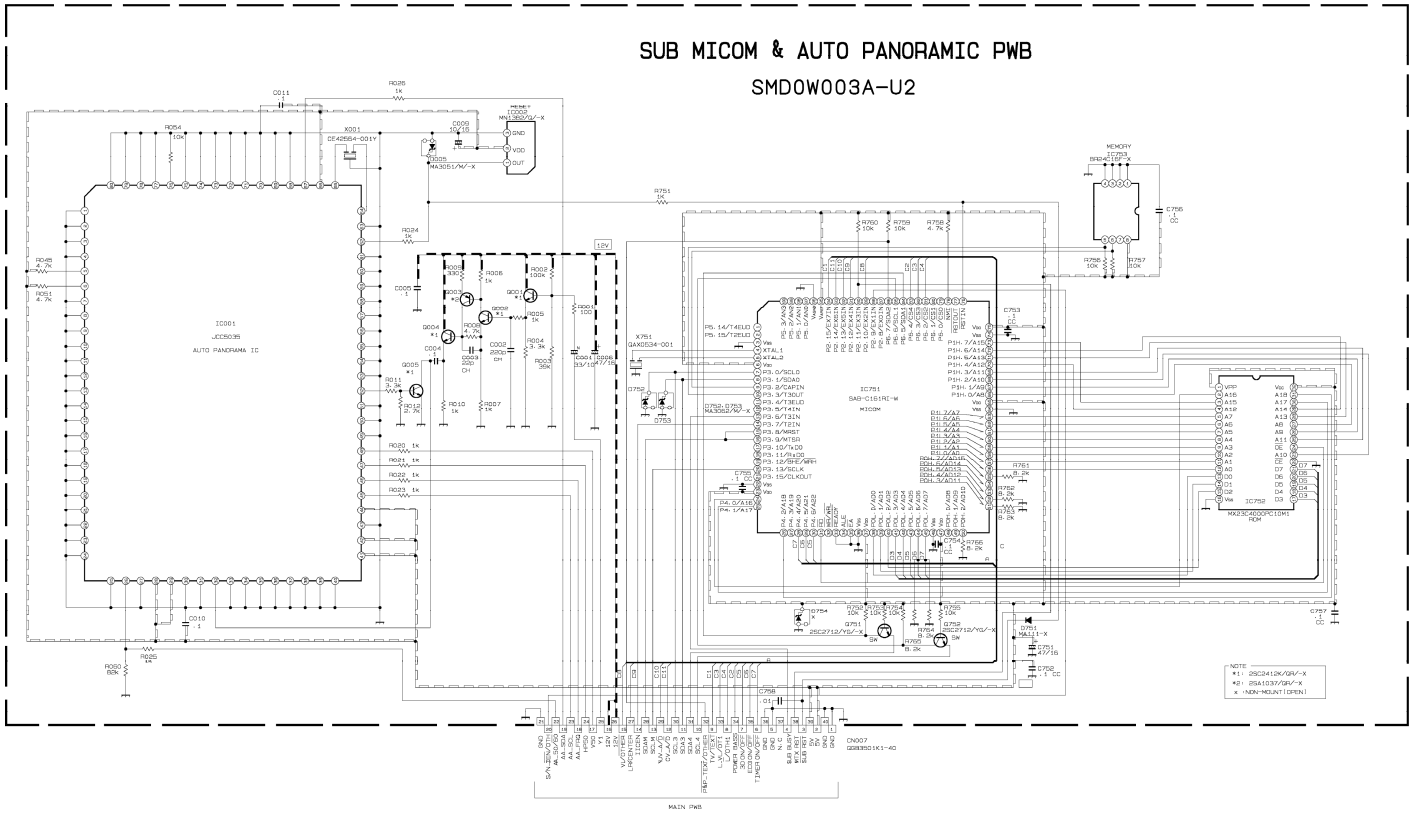
AV-32WL1EU AV-32WL1EU
AV-32WL1EI AV-32WL1EI
AV-32WL1EK AV-32WL1EK

POWER & DEF PWB CIRCUIT DIAGRAM

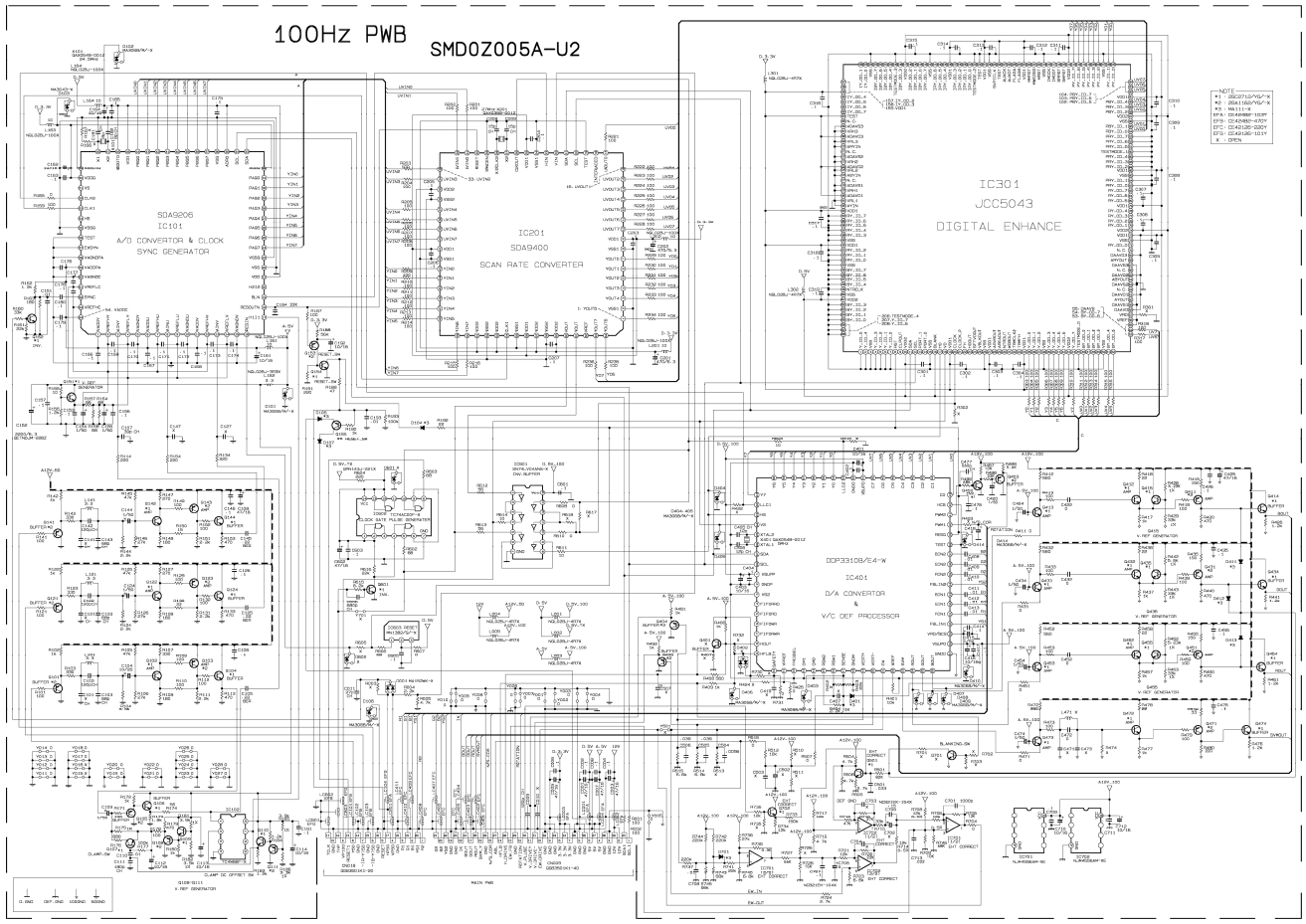


AV-32WL1EU AV-32WL1EU
AV-32WL1EI AV-32WL1EI
AV-32WL1EK AV-32WL1EK

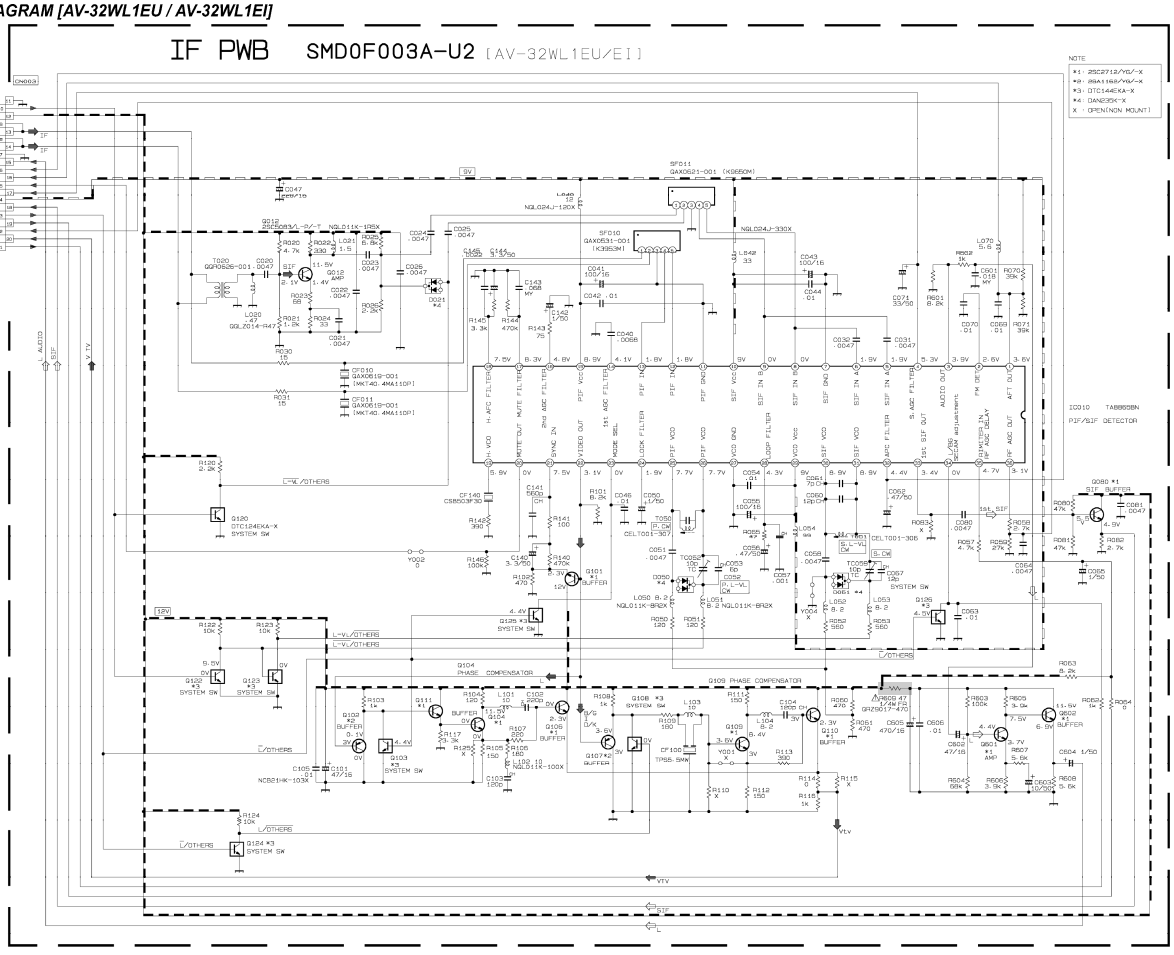
SUB MICON & AUTO PANORAMA PWB CIRCUIT DIAGRAM



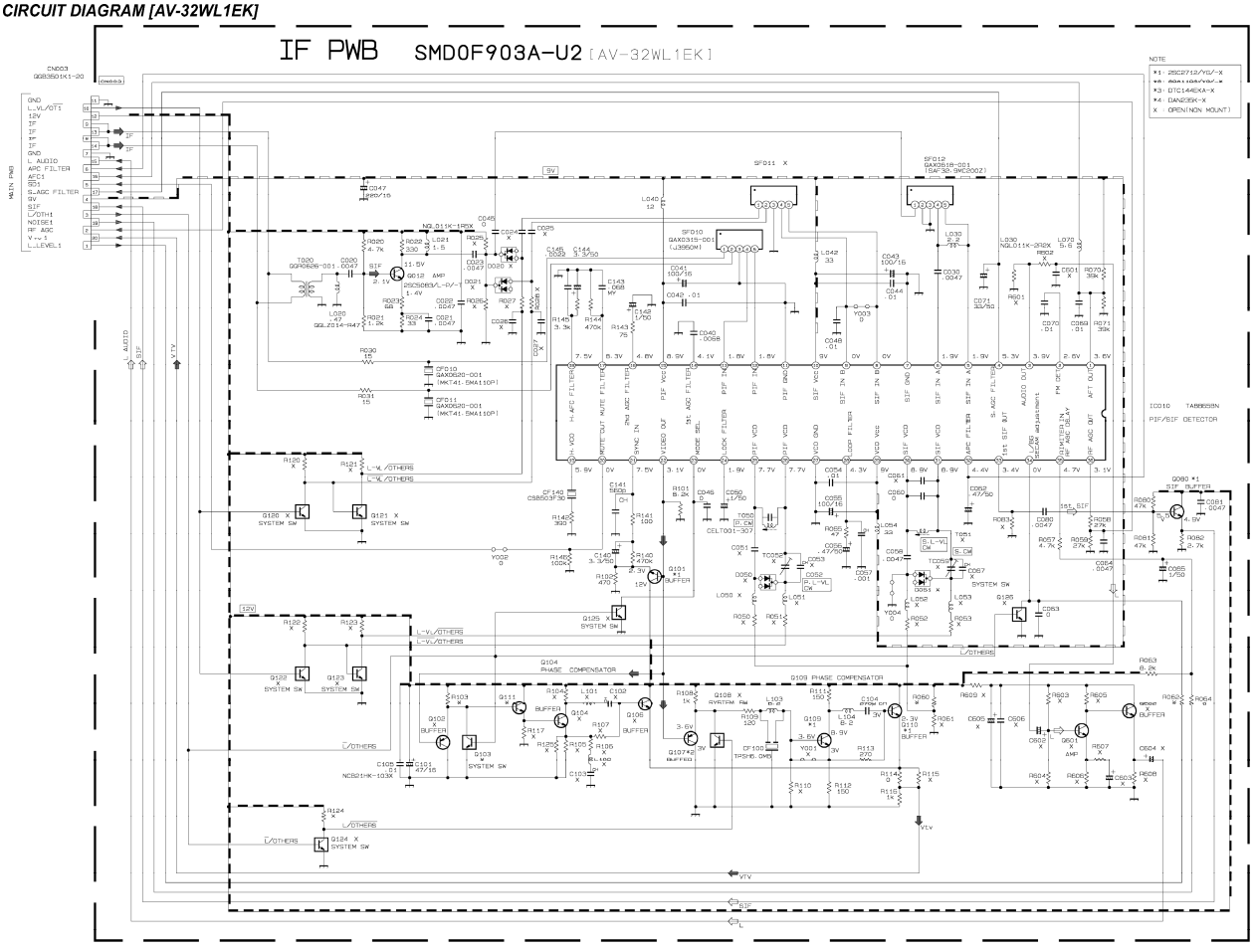
100Hz PWB CIRCUIT DIAGRAM



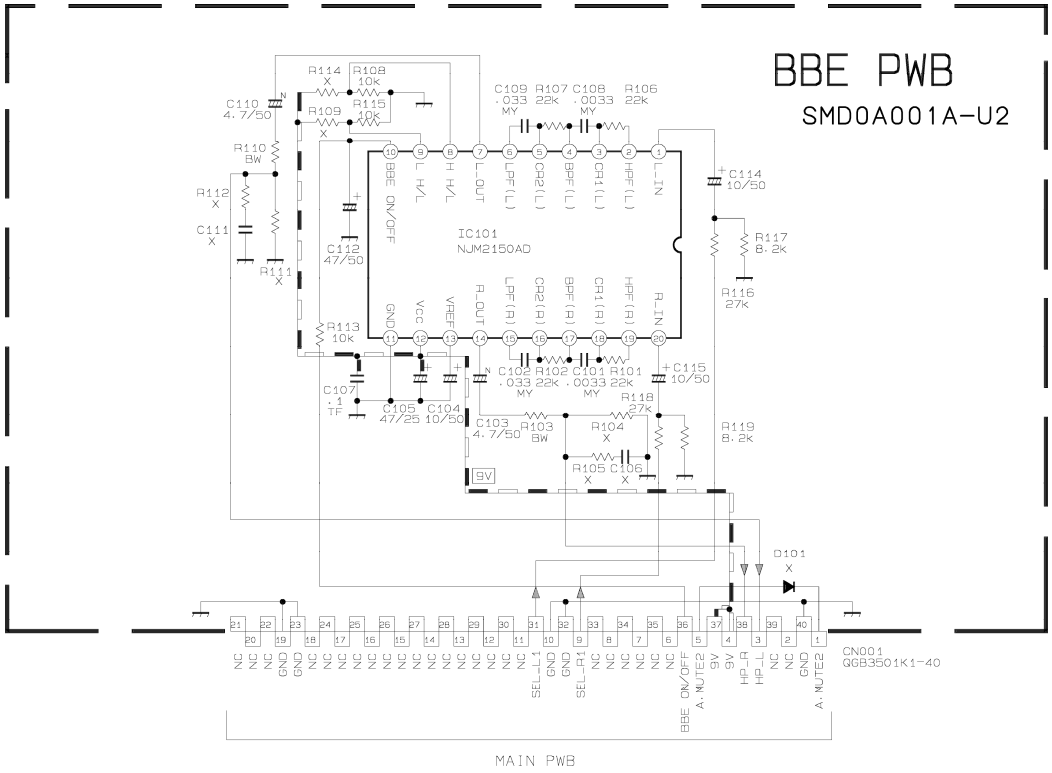
IF PWB CIRCUIT DIAGRAM [AV-32WL1EU / AV-32WL1EI]



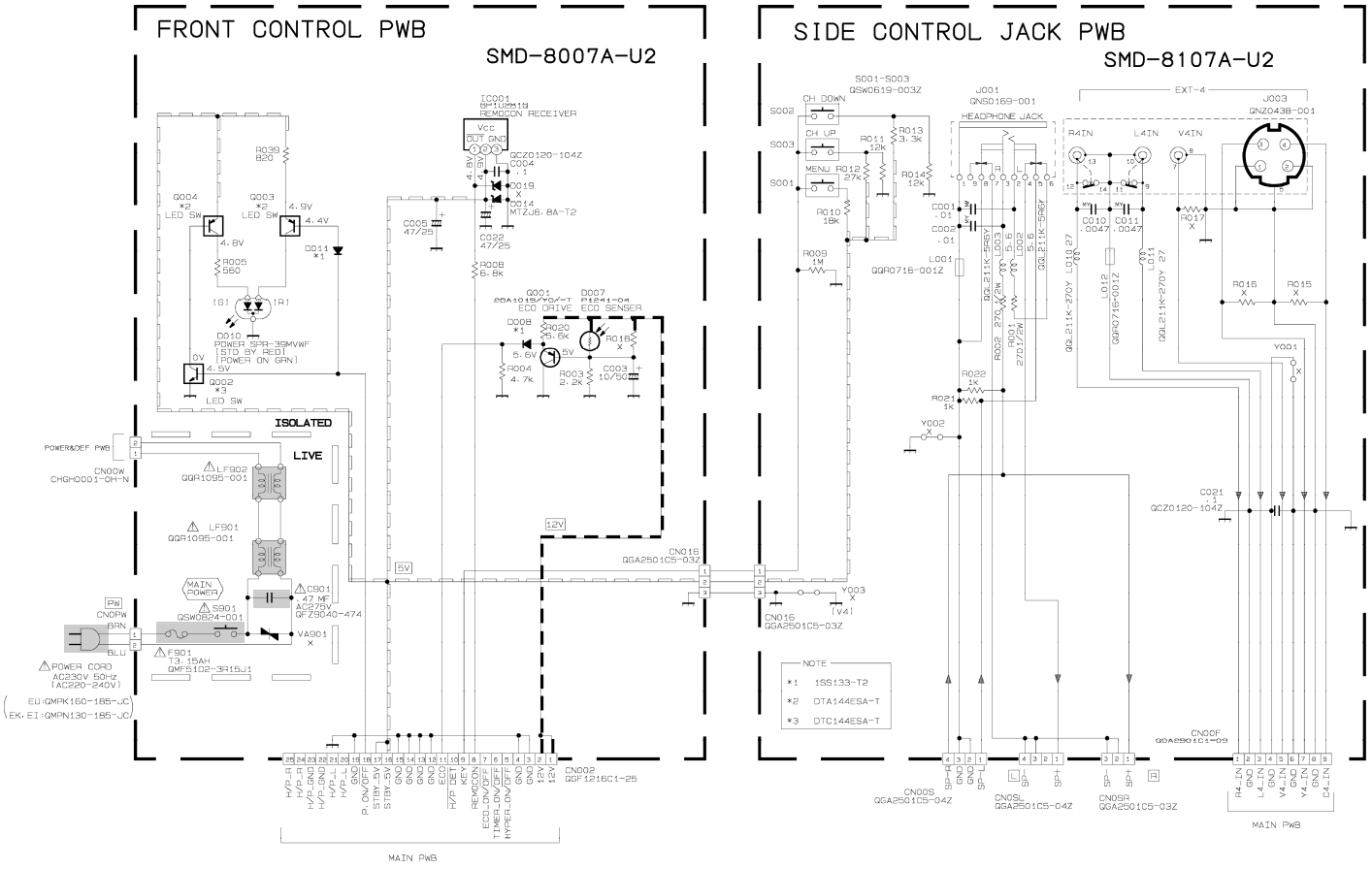
IF PWB CIRCUIT DIAGRAM [AV-32WL1EK]



BBE PWB CIRCUIT DIAGRAM

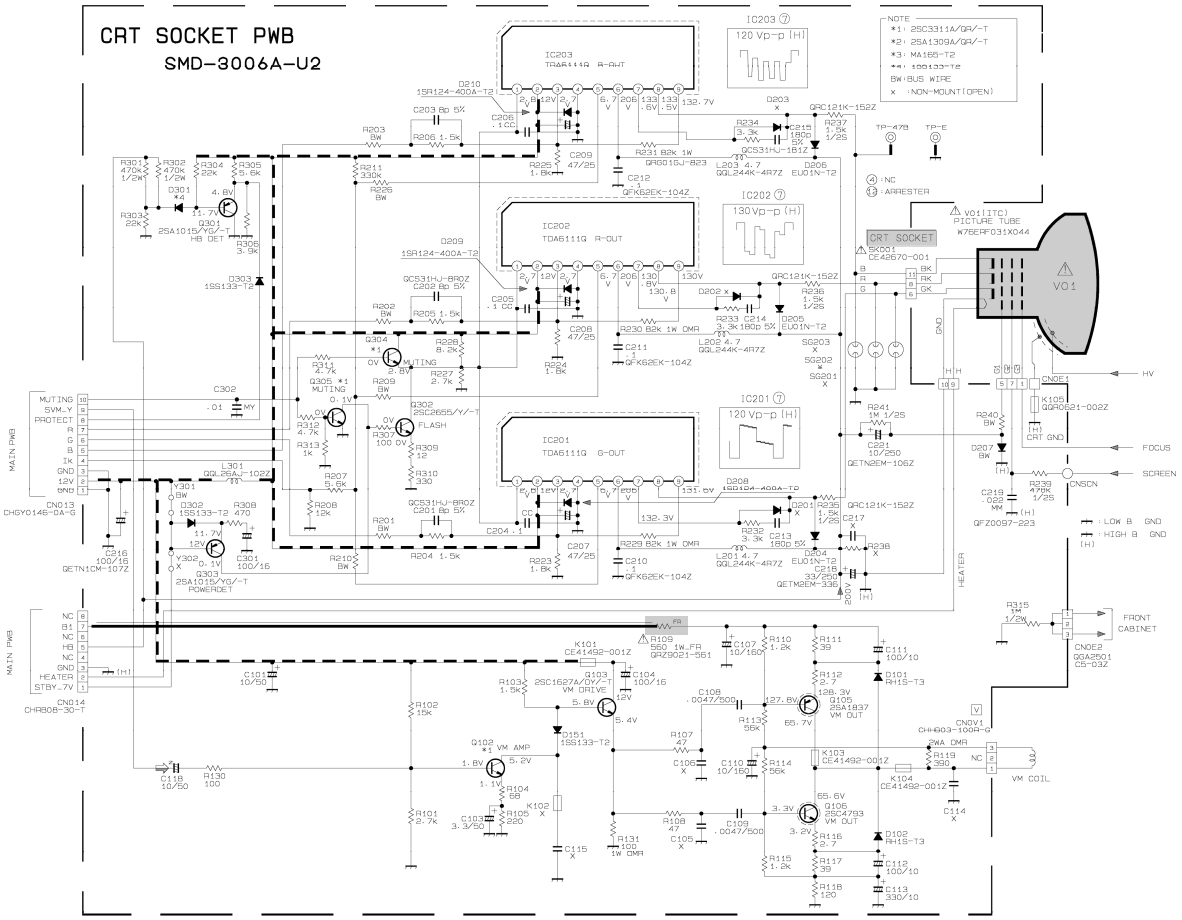


FRONT CONTROL PWB / SIDE CONTROL JACK PWB CIRCUIT DIAGRAM

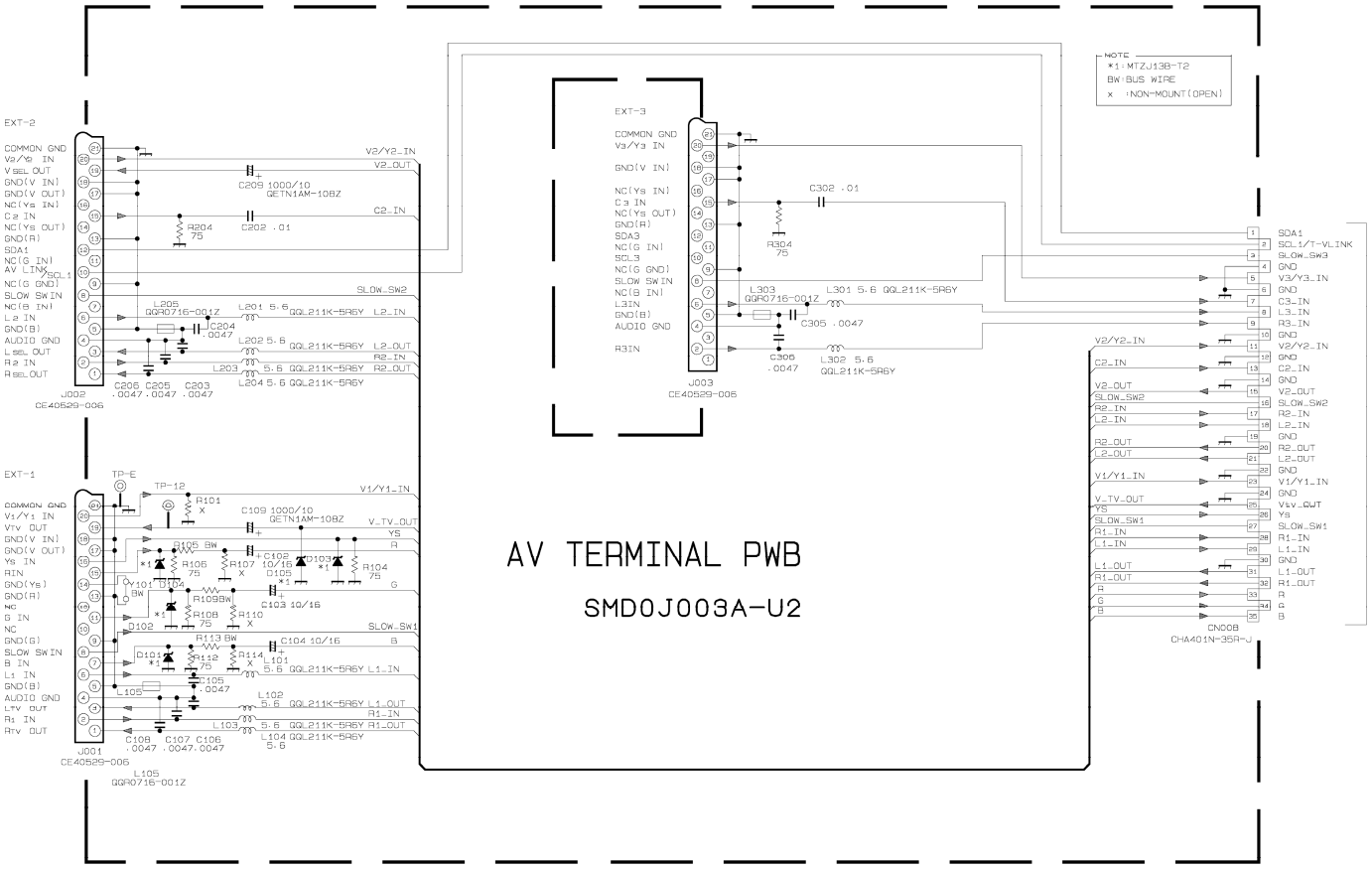


AV-32WL1EU AV-32WL1EU
AV-32WL1EI AV-32WL1EI
AV-32WL1EK AV-32WL1EK

CRT SOCKET PWB CIRCUIT DIAGRAM



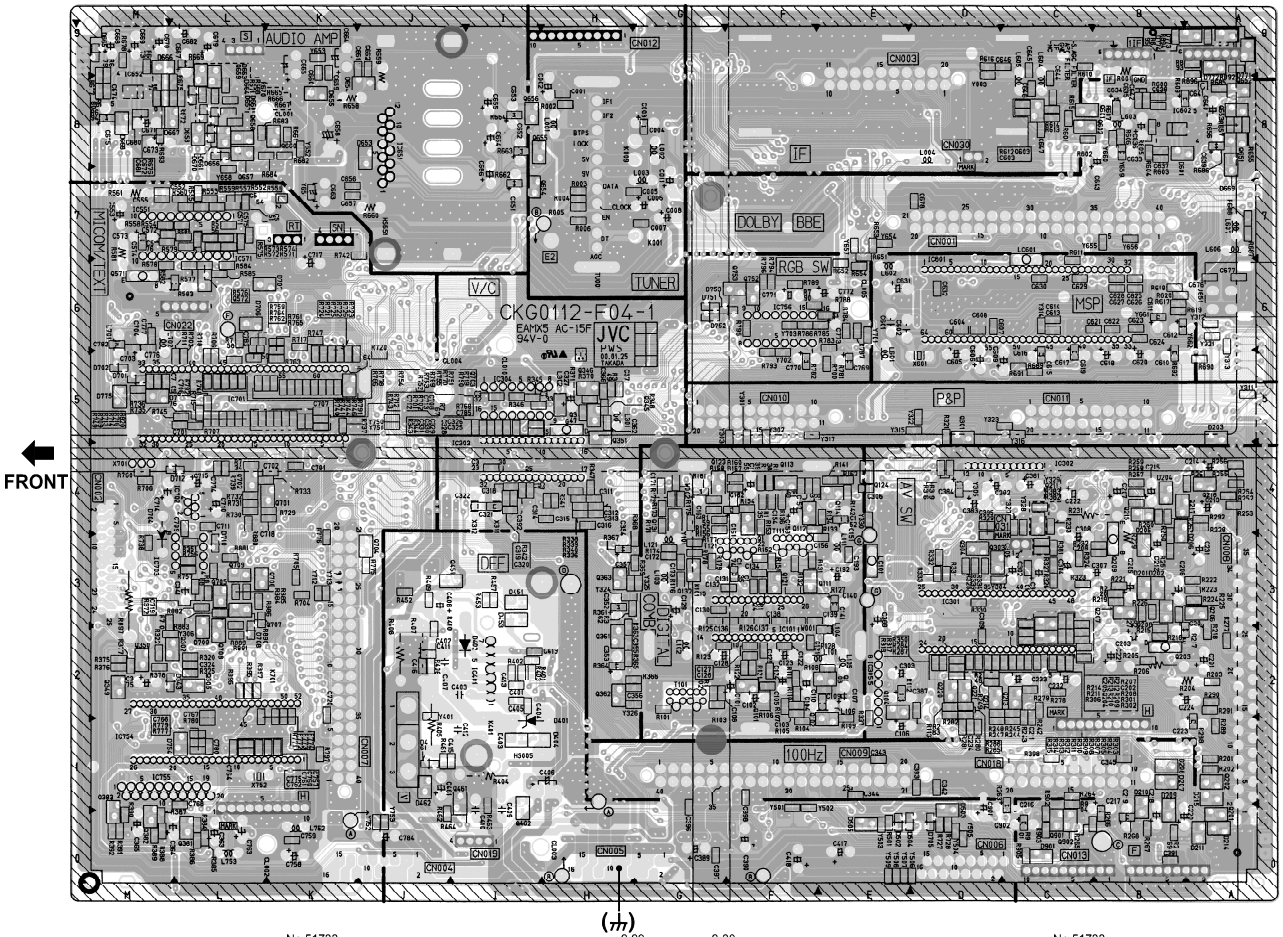
AV TERMINAL PWB CIRCUIT DIAGRAM



AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

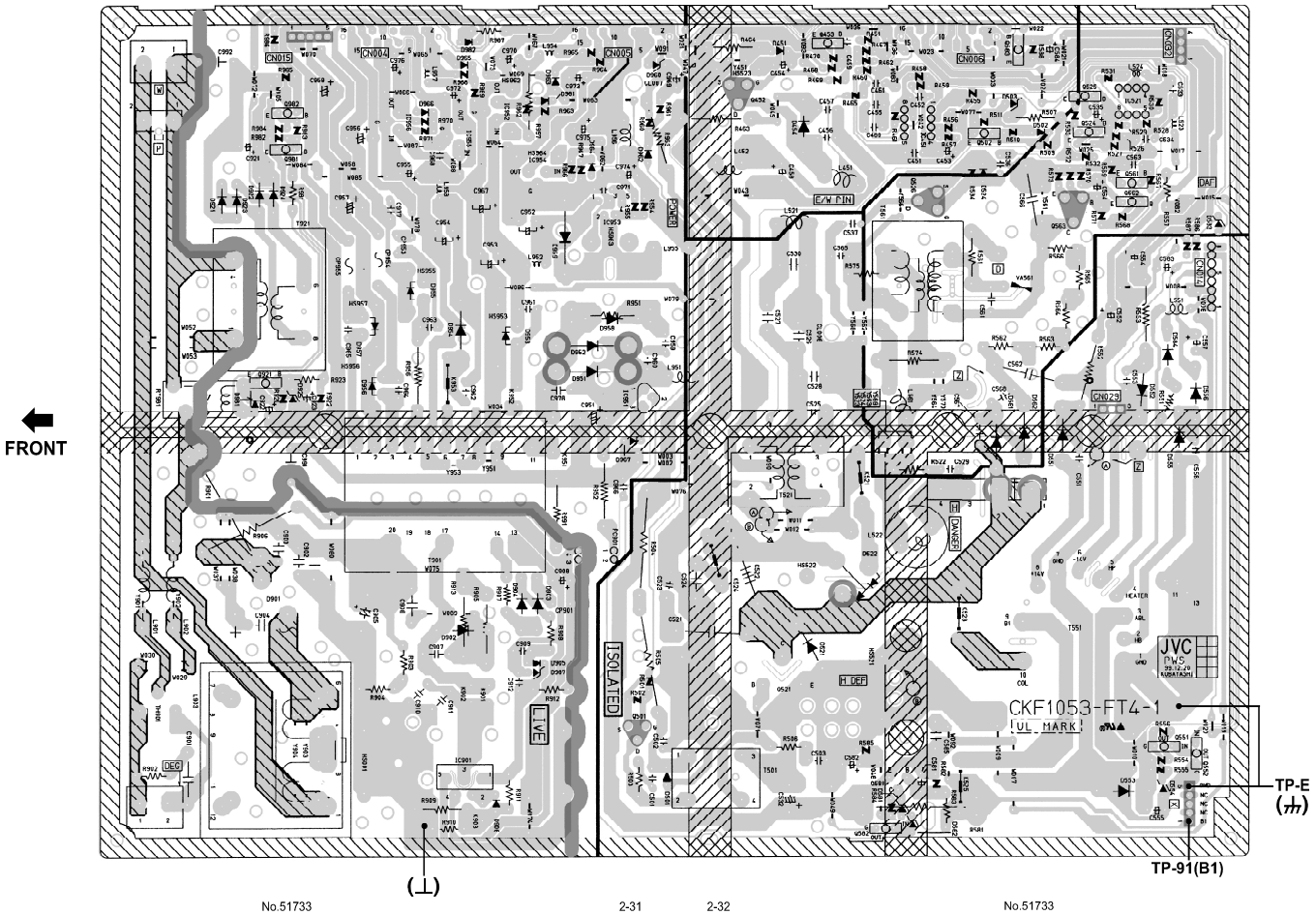
PATTERN DIAGRAMS ***MAIN PWB PATTERN***



AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

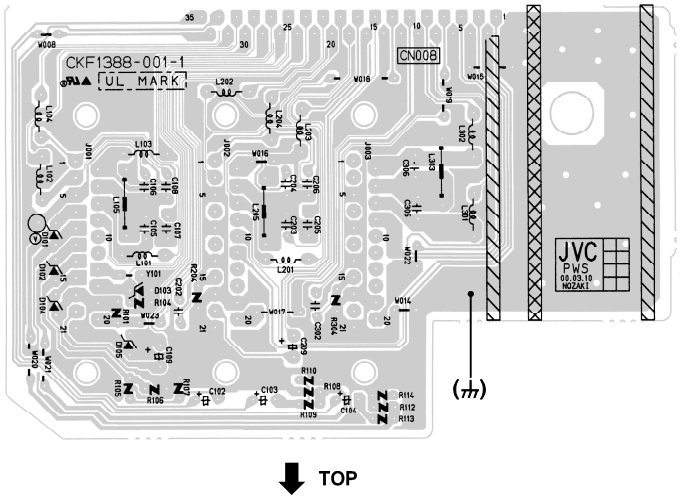
AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

POWER & DEF PWB PATTERN

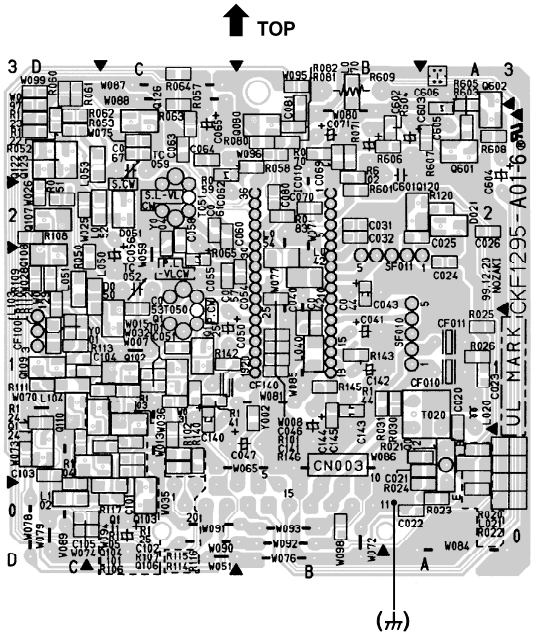


AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

AV TERMINAL PWB PATTERN

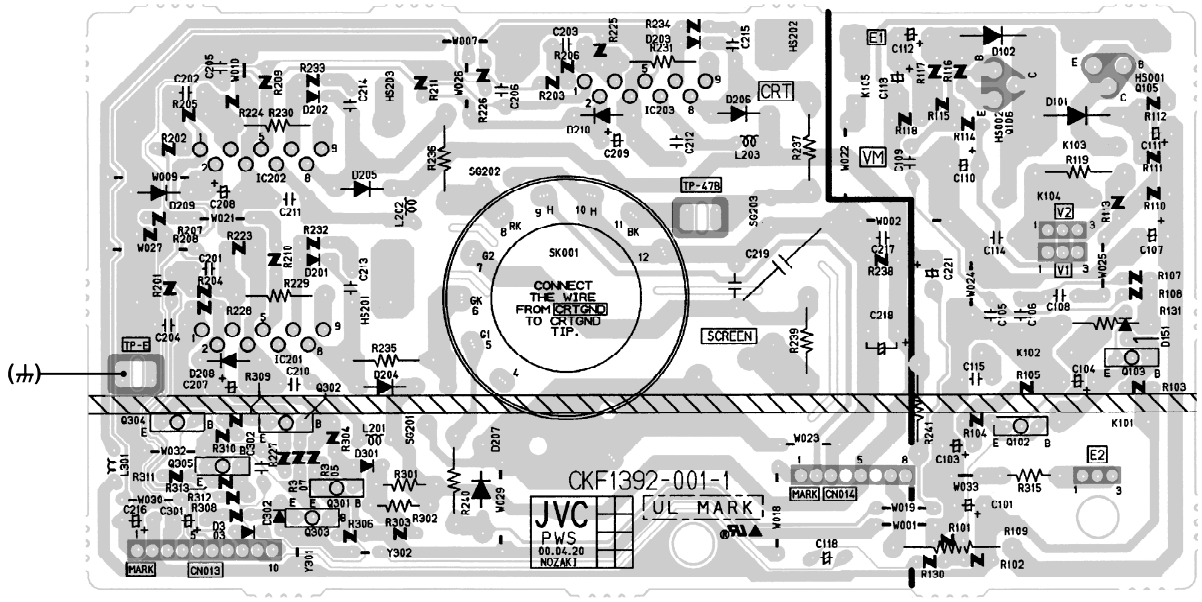


IF PWB PATTERN



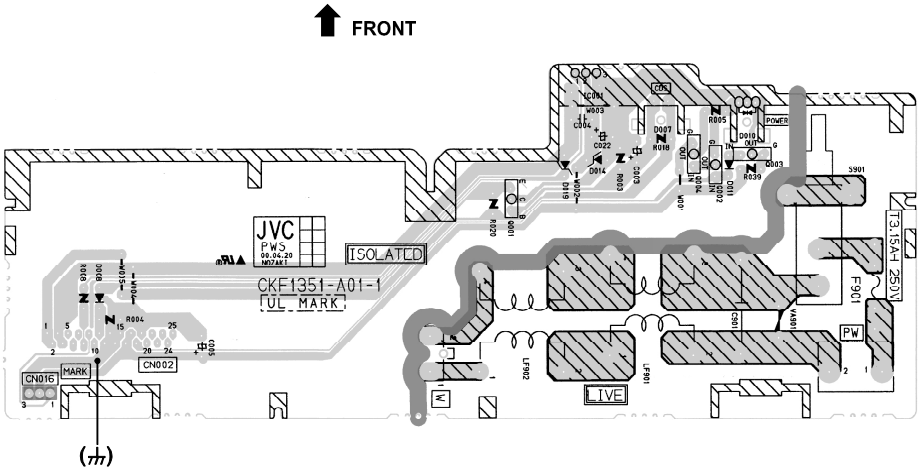
CRT SOCKET PWB PATTERN

TOP

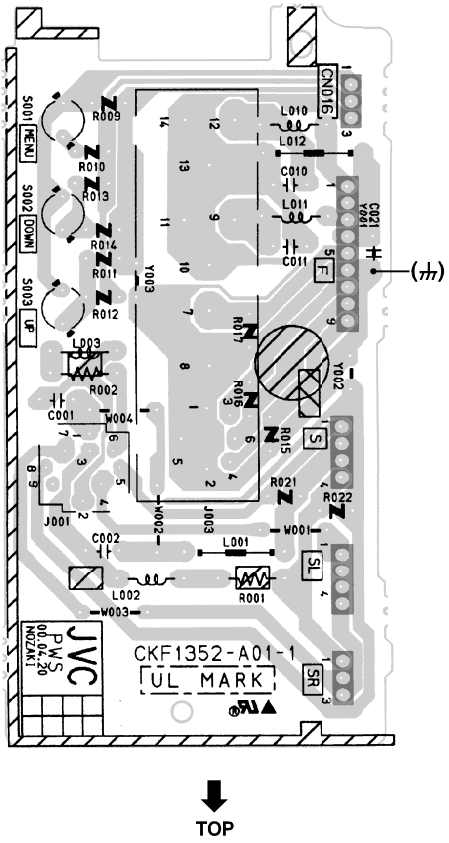


AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

FRONT CONTROL PWB PATTERN

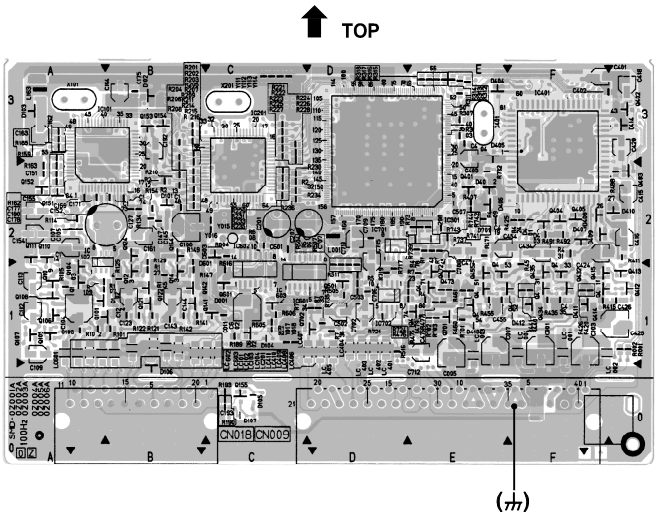


SIDE CONTROL JACK PWB PATTERN

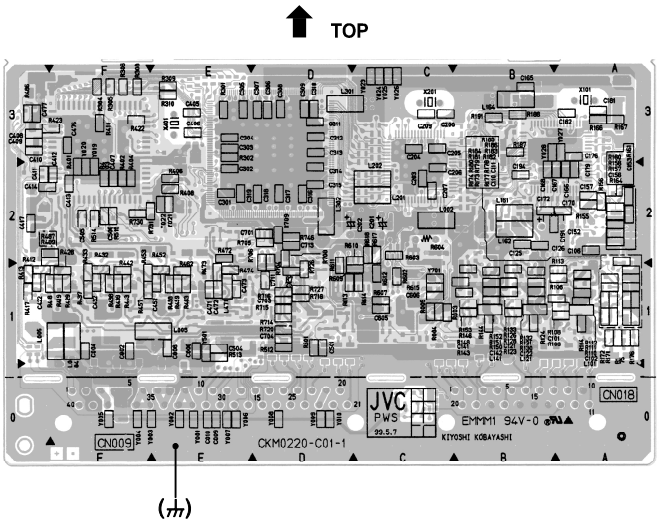


AV-32WL1EU
AV-32WL1EI
AV-32WL1EK

100Hz PWB PATTERN (PARTS SIDE)

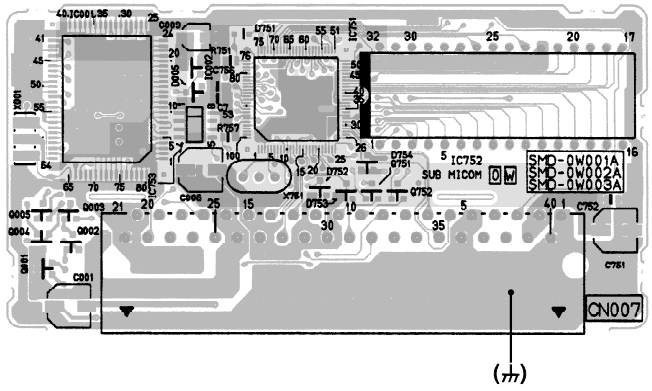


100Hz PWB PATTERN (SOLDER SIDE)



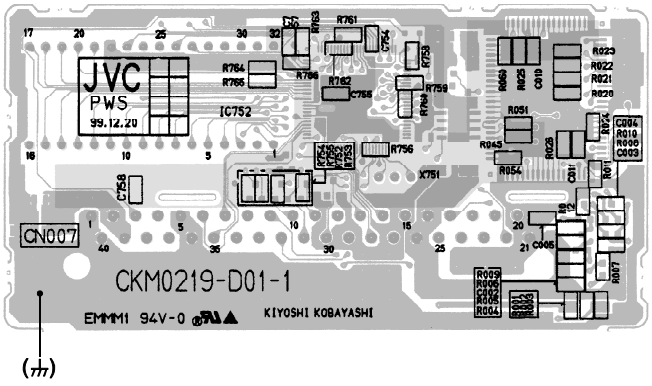
SUB MICON & AUTO PANORAMA PWB PATTERN (PARTS SIDE)

TOP



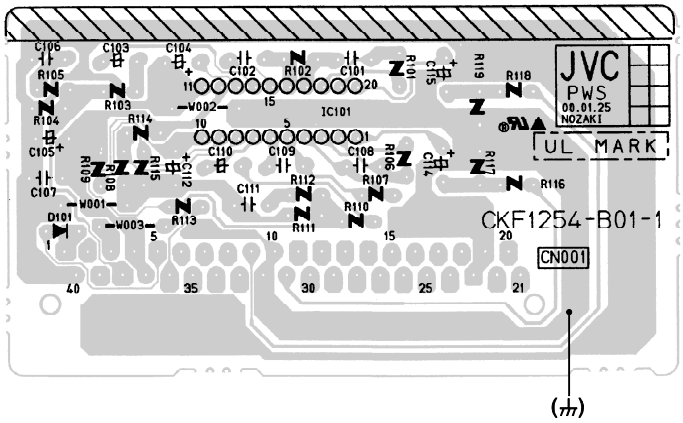
SUB MICON & AUTO PANORAMA PWB PATTERN (SOLDER SIDE)

TOP



BBE PWB PATTERN

TOP



VPO006
DP6062